Hisense

Plasma Display Television

Service Manual

Chassis： MT5380

Product Type： PHD42W39US(1)

Ver 1.0

Hisense Electric Co., Ltd.

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1.Product Safety Servicing Guidelines

1.1. Precautions and notices

BEFORE SERVICING THE CHASSIS, READ THE “SAFETY PRECAUTION” ON THIS MANUAL.
WHEN REPLACEMENT PARTS ARE REQUIRED, BE SURE TO USE REPLACEMENT PARTS SPECIFIED BY THE MANUFACTURER.

WARNING:
Service should not be attempted by anyone unfamiliar with the necessary precaution on this receiver. The following are the necessary precautions to be observed before servicing this chassis.
1. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as: non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.
2. When replacing parts or circuit boards, disconnect the power cord.
3. When replacing a high wattage resistor (oxide metal film resistor) on the circuit board, keep the resistor 10mm (1/2in) away from circuit board.
4. Connection wires must be kept away from components with high voltage or high temperature.
5. If any fuse in this TV receiver is blown, replace it with the FUSE specified in the chassis parts list.

1.2.Product Safety notice

Many electrical and mechanical parts in the chassis have special safety-related characteristics.

These characteristics are often passed unnoticed by a visual inspection.
Replacement parts, which have these special safety characteristic are identified in this manual and its supplement electrical components having such features are shaded on the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts, which do not have the same characteristic as specified in the parts list may create shock, fire or other hazards.

NOTES：

Screen Image retention Do not display a still image (such as on a video game or when hooking up a PC to this PDP) on plasma monitor panel for a long time as it can cause screen image retention. This image retention is also known as “screen burn”. To avoid such image retention, reduce the degree of brightness and contrast of the screen when displaying a still image.

A still image displayed too long may cause permanent damage to the PDP Panel Watching the PDP TV in 4:3 format or other non full screen formats for a long period of time may leave traces of borders displayed on the left, right and centre of the screen caused by the difference of light emission on the screen. Playing a DVD or a game console may cause similar effect to the screen. Damages caused by the above effect are not covered by the Warranty.

Afterimage on the Screen Displaying still images from Video games and PC for longer than a certain period of time may produce partial afterimages. To prevent this effect, reduce the brightness and contrast when displaying still images for a long time.

Height The PDP can normally operate only under 2000m in height. It might abnormally function at a place over 2000m in height and do not install and operate there.

Avoid operating the TV at temperatures below 5 (41°F)

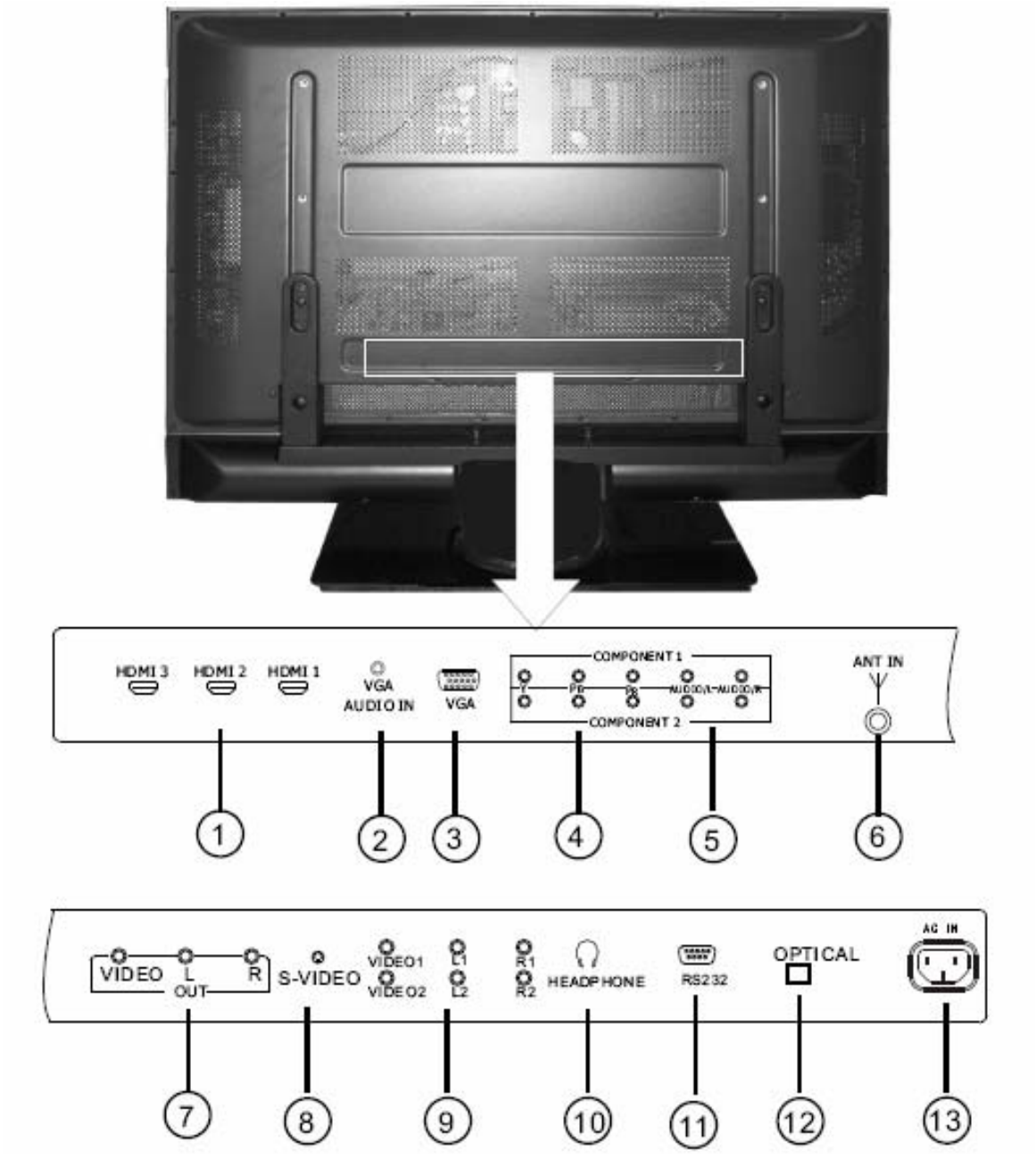
Warranty Warranty does not cover any damage caused by image retention; Burn-in is not covered by the warranty.

2. Product Function Specifications

2.1 Product Function

Front Cabinet

① Power indicator
② Remote sensor
③ Menu button
④ Input selecting button
⑤ Volume up
⑥ Volume down
⑦ Channel up
⑧ Channel down
⑨ Power(standby)



① HDMI INPUT
② VGA AUDIO INPUT
③ VGA INPUT
④ COMPONENT INPUT
⑤ COMPONENT AUDIO INPUT
⑥ ANTENNA INPUT
⑦ VIDEO/AUDIO OUTPUT
⑧ S-VIDEO INPUT
⑨ VIDEO INPUT
⑩ HEADPHONE OUTPUT
⑪ RS232 INPUT
⑫ DIGITAL AUDIO OUTPUT
⑬ AC INPUT

2.2 Specifications

Model	PHD42W39US
Diagonal display size	42 inches
Television system	American TV standard ATSC/NTSC system
Audio multiplex	BTSC system
Channel coverage	VHF: 2~13 UHF: 14~69 CATV:1~125 Digital Terrestrial Broadcast (8VSB): 2~69 Digital cable (64/256 QAM): 1~135
PC mode	640×480/60Hz,800×600/60Hz,1024×768/60Hz
YPbPr/YCbCr mode	480I/60Hz,480P/60Hz,720P/60Hz,1080I/60Hz
Resolution	1024×768
Power source	AC 120 V, 60 Hz
Power consumption	350W
Audio power	10W+10W
Conection Interface	RF input: Cable/Antenna ×1 VIDEO input: VIDEO ×2 S-VIDEO ×1 COMPONENT ×2 HDMI×3 VIDEO output: VIDEO×1 GRAPHIC input: Analog RGB 15pin ×1 AUDIO input: AV Audio×2 Component Audio×2 PC Audio Input×1 AUDIO output: AV Audio×1 Digital audio output×1
Dimensions	Length: 41.4 inches Width: 14.2 inches Height: 30.2inches
Weight	80.3 lbs
Supplied accessories	Remote control, AC cord, Batteries, User Manual, Warranty Card Stand Assemble Guide, QSG, Remote Control Guide

Design and specifications are subject to change without notice.

3. PDP Panel Spec

3.1 General Description

Model：PDP42G1 \ROH SN：1050423

The PDP42G1#### requires only 8/10/12/14 bits of digital video signals for each RGB color. Subject to change with
In addition to the video signals, six different DC voltages are required to operate the display.
The PDP42G1#### is equipped with P-CUBE function which analyzes display signals to optimize system control factor for showing the best display performance.

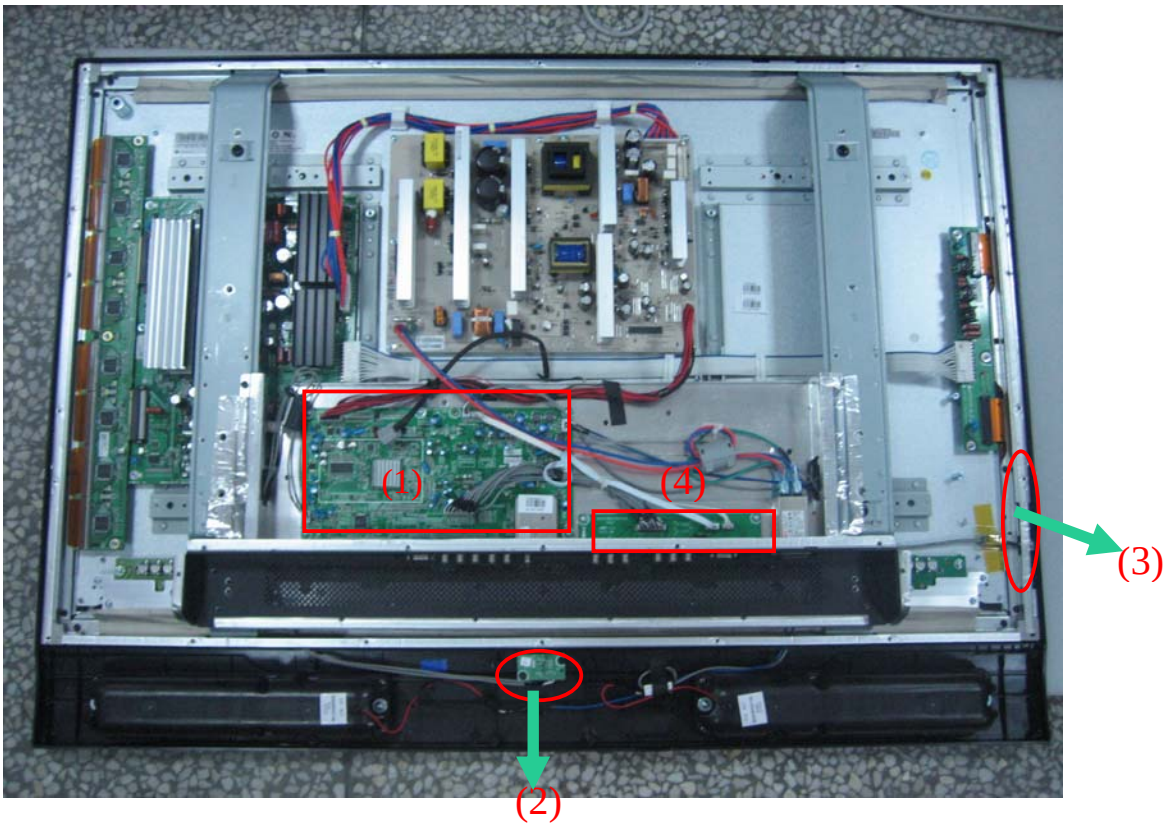
3.2 General Features

✓ Model Name	: PDP42G1#### (42G1 Model)
✓ Number of Pixels	: 1024(H) × 768(V) (1pixel=3 RGB cells)
✓ Pixel Pitch	: 900㎛ (H) × 676㎛ (V)
✓ Cell Pitch	: 300㎛ (H) × 676㎛ (V) (Green Cell basis)
✓ Display Area	: 921.5(H) × 519.0(V) ± 0.5mm
✓ Outline Dimension	: 1005(H) × 597(V) × 60.7(D) ± 1mm
✓ Pixel Type	: RGB Closed (Well) type
✓ Number of Gradations	: 16bit (R) 65,536 × (G) 65,536 × (B) 65,536 colors (281.47 trillion)
	: 14bit (R) 16,384 × (G) 16,384 × (B) 16,384 colors (4.398 trillion)
	: 12bit (R) 4,096 × (G) 4,096 × (B) 4,096 colors (68.719 billion)
	: 10bit (R) 1,024 × (G) 1,024 × (B) 1,024 colors (1.073 billion)
	: 8bit (R) 256 × (G) 256 × (B) 256 colors (16.78 million)
✓ Weight	: 12.2±0.5 Kg (Net 1EA)
✓ Aspect Ratio	: 16:9
✓ Peak Brightness	: Typical 1,500cd/㎡ (1/100 White Window pattern at center)
✓ Contrast Ratio	: Average 180:1 (In a bright room with 100Lux at center)
	: Typical 30,000:1 (In a dark room 1/100 White Window pattern at center)
✓ Power Consumption	: Max. 330 W (Full-White)
✓ Expected Life-time	: Warranty life time 60,000 Hours with continuous operation

☞ Warranty life-time is defined as the time when the brightness level becomes half of its initial value.

4. Chassis Layout and Overall Wiring Diagrams

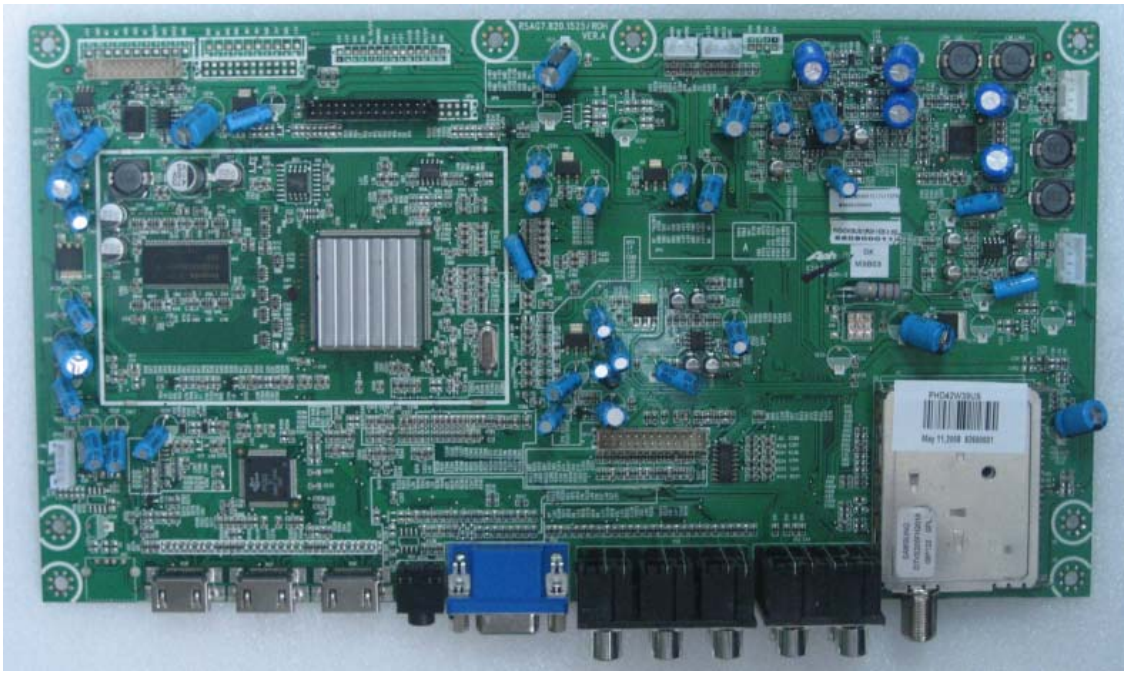
4.1 Chassis Layout



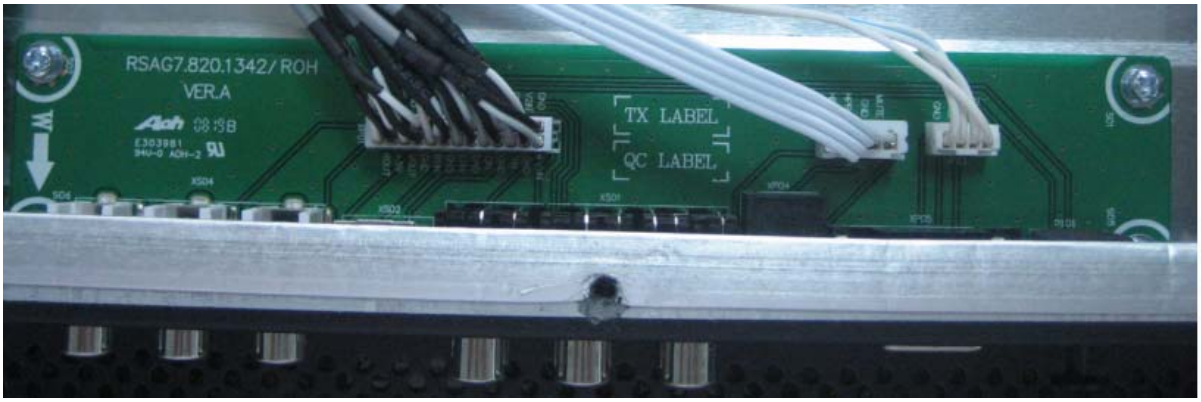
No	Part No	Description	Type/Model	PCB/Model
1	Main BD	117276	RSAG2.908.1375-1\ROH	RSAG7.820.1525\VER.A
2	Led& IR BD	115206	RSAG2.908.1236\ROH	RSAG7.820.1318
3	Keypad BD	115208	RSAG2.908.1118-2\ROH	RSAG7.820.1141\Ver.B
4	Terminal BD	115138	RSAG2.908.1232	RSAG7.820.1342\VER.A

Note:BD is board

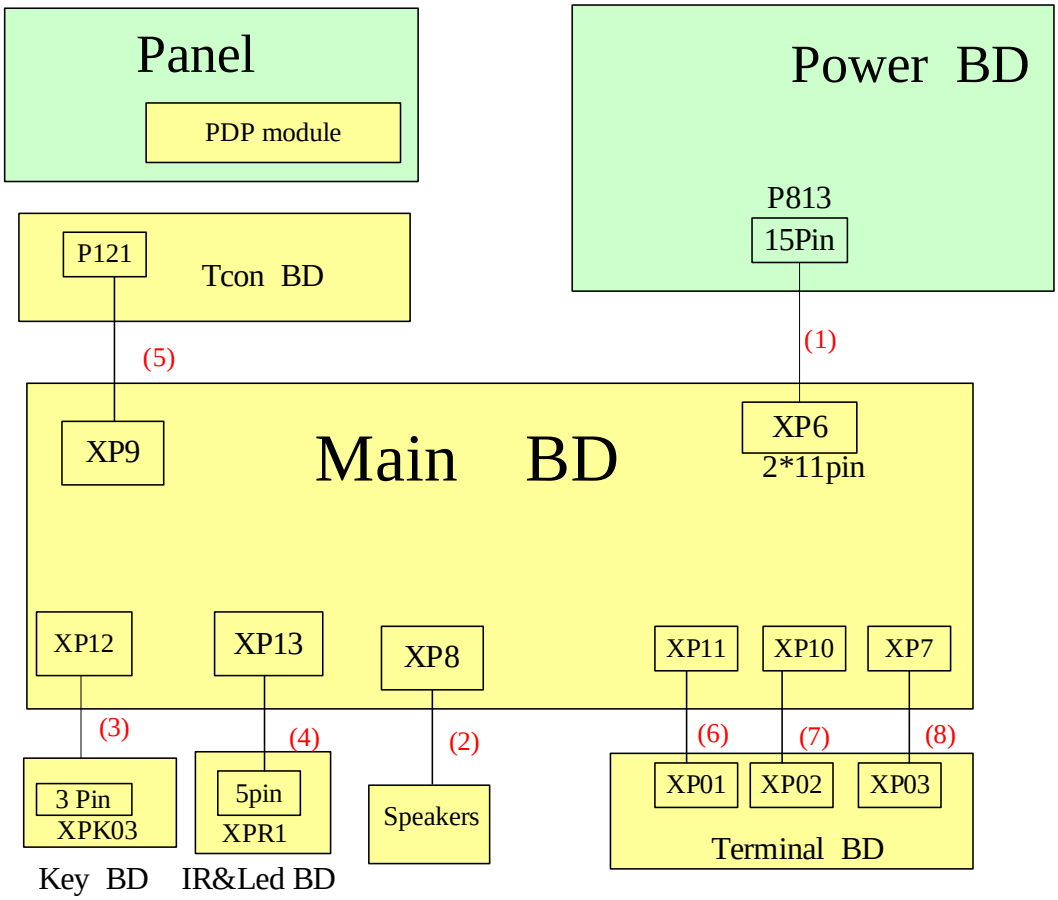
4.2 Main BD



4.3 **Terminal BD**



4.4 Wires and Cables Overall Wiring Diagrams



No	DESCRIPTION	SPECIPICATION	NOTE
1	5V/12V power and communication between Main BD and power BD	HX2-2X11D500-1\ROH	Main BD XP6<--> Power BD P813
2	Audio output (L/R)	TJC3H-4Y-800-850-P\ROH	Main BD XP8<-->Speaker L/R
3	Buttons	TJC10T-3Y-700-P\ROH	Main BD XP12<--> Keypad BD XPK03
4	Led & IR	TJC10T-5Y-950-P\ROH	Main BD XP13--> LED&IR BD XPR1
5	LVDS signal	FF-HX19-11\ROH	Main BD XP9<--> Tcon BD P121
6	AV and S-video signal	HX-2026C250\ROH	Main BD XP11<-->AV BD XP01
7	Headphone signal	TJC3T-4Y-200\ROH	Main BD XP10<-->AV BD XP02
8	Series upgrade	TJC10T-4Y-300\ROH	Main BD XP7<-->AV BD XP03

5. Factory/Service OSD Menu and Adjustment

5.1 To enter the Factory OSD Menu

A. With factory RC (remote control)

1. Press “M” button and enter factory mode.
2. Press “Menu” button and enter factory OSD menu.
3. Press “CH+”/“CH-” button select the function menu, press “VOL+”/“VOL-” enter the selected function menu. Press “VOL+”/“VOL-” button adjust values in the menu.

B. With user’s RC

1. Power TV On
2. Press Menu button and call up User OSD Menu
3. Select Sound-> Balance
4. Enter 0->5->3 ->2 in sequence.
   Note: If necessary, re-do number keys.
5. Factory OSD appears.

5.2 Factory OSD Menu

5.2.1. White Balance

	Item	Default Value		Range	Note
1	R Gain	124	TV	0-255	To adjust White Balance, High Brightness Red.
		124	AV1	0-255	
		124	AV2	0-255	
		124	S-Video	0-255	
		139	VGA	0-255	
		120	Component1	0-255	
		120	Component2	0-255	
		130	HDMI1	0-255	
		130	HDMI2	0-255	
		130	HDMI3	0-255	
2	G Gain	125	TV	0-255	To adjust White Balance, High Brightness Green.
		125	AV1	0-255	
		125	AV2	0-255	
		125	S-Video	0-255	
		139	VGA	0-255	
		140	Component1	0-255	
		140	Component2	0-255	
		139	HDMI1	0-255	
		139	HDMI2	0-255	
		139	HDMI3	0-255	

3	B Gain	125	TV	0-255	To adjust White Balance, High Brightness Blue.
		125	AV1	0-255	
		125	AV2	0-255	
		125	S-Video	0-255	
		125	VGA	0-255	
		137	Component1	0-255	
		137	Component2	0-255	
		125	HDMI1	0-255	
		125	HDMI2	0-255	
		125	HDMI3	0-255	
4	R Offset	125	TV	0-255	To adjust White Balance, Low Brightness Red.
		125	AV1	0-255	
		125	AV2	0-255	
		125	S-Video	0-255	
		126	VGA	0-255	
		128	Component1	0-255	
		128	Component2	0-255	
		128	HDMI1	0-255	
		128	HDMI2	0-255	
		128	HDMI3	0-255	
5	G Offset	125	TV	0-255	To adjust White Balance, Low Brightness Green.
		125	AV1	0-255	
		125	AV2	0-255	
		125	S-Video	0-255	
		124	VGA	0-255	
		126	Component1	0-255	
		126	Component2	0-255	
		126	HDMI1	0-255	
		126	HDMI2	0-255	
		126	HDMI3	0-255	
6	B Offset	124	TV	0-255	To adjust White Balance, Low Brightness Blue.
		124	AV1	0-255	
		124	AV2	0-255	
		124	S-Video	0-255	
		128	VGA	0-255	
		129	Component1	0-255	
		129	Component2	0-255	
		128	HDMI1	0-255	
		128	HDMI2	0-255	
		128	HDMI3	0-255	
7	WBH Brightness	60		0-100	Adjust high brightness temporarily
8	WBH Contrast	60		0-100	Adjust high contrast temporarily
9	WBH Color	60		0-100	Adjust high color temporarily

10	WBL Brightness	40	0-100	Adjust low brightness temporarily
11	WBL Contrast	40	0-100	Adjust low contrast temporarily
12	WBL Color	40	0-100	Adjust low color temporarily

Note: Before adjusting, please change to desired source. Different source has different WB values.

5.2.2. Set Channel

	Item	Note
1	Zhong Shi	Jiang xi Road factory
2	Huang Dao	Huang dao Industrial Park
3	Gui Yang	Gui Yang Industrial Park
4	Liao Ning	Liao Ning Industrial Park
5	Hungary	Hisense Hungary
6	Australia	Hisense Australia
7	France	Hisense France

5.2.3 Auto Color

For VGA and Component Video sources, WB values must be adjusted.

Before adjusting, prepare the signal instruments such as DVD or K-8256 first, and find the video picture with gray and color bars. Then please change to desired source.

	source	Timing	Pattern	Notes
1	ADC VGA	1024*768	gray-3color	For VGA source
2	ADC HDTV	720P	gray-3color	For Component Video

5.2.3. Factory Option

	Item	Default	Options	Note
1	MODE	M	M, U	M-Can enter factory mode with factory RC or user RC. U-Can enter factory mode only with user's RC.

Note: MODE "M" is only used for factory production.

5-2-4. Version Info

	Item	Default	Options	Note
1	Version			Software version
2	Date			The date of current version

Note: Software version info of the TV, readable only.

5.2.5. Clear the EEPROM

Item	Meaning	Note
Clean Protected	Clear partly	Clean data except WB data and Auto Color data
Clean All	Clear completely	Clean all datas

Note: The factory menu data varies according to different sources. Incase changing the factory data by error, you can choose to "Clean Protected", by which you can resume the default value.

To clear the EEPROM:

a. Select the button "Clean All".

b. Press VOL+ button to clear the EEPROM data.

c. Wait for 5 seconds, turn off the power.

d. Restart the TV.

5.3 Designer Menu

5.3.1 Color Temp

	Default	Item	Default Value		Range		Note
			Warm	Cool			
1	Cool	R Gain	142	127	TV	0-255	
			142	127	AV1	0-255	
			142	127	AV2	0-255	
			142	127	S-Video	0-255	
			154	139	VGA	0-255	
			148	133	Component1	0-255	
			148	133	Component2	0-255	
			153	138	HDMI1	0-255	
			153	138	HDMI2	0-255	
			153	138	HDMI3	0-255	
2		G Gain	135	135	TV	0-255	
			135	135	AV1	0-255	
			135	135	AV2	0-255	
			135	135	S-Video	0-255	
			139	139	VGA	0-255	
			140	140	Component1	0-255	
			140	140	Component2	0-255	
			139	139	HDMI1	0-255	

			139	139	HDMI2	0-255	
			139	139	HDMI3	0-255	
3		B Gain	127	142	TV	0-255	
			127	142	AV1	0-255	
			127	142	AV2	0-255	
			127	142	S-Video	0-255	
			125	140	VGA	0-255	
			124	139	Component1	0-255	
			124	139	Component2	0-255	
			125	140	HDMI1	0-255	
			125	140	HDMI2	0-255	
			125	140	HDMI3	0-255	

5.3.2 Video

	Item		Default		range	Note
1	Video Curve	Min Bright	0	TV	0-1000	Min Brightness
			0	AV1	0-1000	
			0	AV2	0-1000	
			0	S-Video	0-1000	
			0	VGA	0-1000	
			0	Component1	0-1000	
			0	Component2	0-1000	
			0	HDMI1	0-1000	
			0	HDMI2	0-1000	
			0	HDMI3	0-1000	
		Mid Bright	520	TV	0-1000	Mid Brightness
			530	AV1	0-1000	
			530	AV2	0-1000	
			530	S-Video	0-1000	
			490	VGA	0-1000	
			530	Component1	0-1000	
			530	Component2	0-1000	
			530	HDMI1	0-1000	
			530	HDMI2	0-1000	
			530	HDMI3	0-1000	
		Max Bright	600	TV	0-1000	Max Brightness
			600	AV1	0-1000	
			600	AV2	0-1000	
			600	S-Video	0-1000	
			635	VGA	0-1000	
			650	Component1	0-1000	
			650	Component2	0-1000	
			650	HDMI1	0-1000	
			650	HDMI2	0-1000	
			650	HDMI3	0-1000	
		Min Contrast	0	TV	0-1000	Min Contrast
			0	AV1	0-1000	
			0	AV2	0-1000	
			0	S-Video	0-1000	
			0	VGA	0-1000	
			0	Component1	0-1000	
			0	Component2	0-1000	

			0	HDMI1	0-1000	
			0	HDMI2	0-1000	
			0	HDMI3	0-1000	
		Mid Contrast	450	TV	0-1000	Mid Contrast
			470	AV1	0-1000	
			470	AV2	0-1000	
			470	S-Video	0-1000	
			440	VGA	0-1000	
			470	Component1	0-1000	
			470	Component2	0-1000	
			440	HDMI1	0-1000	
			440	HDMI2	0-1000	
			440	HDMI3	0-1000	
		Contrast Max	550	TV	0-1000	Max Contrast
			550	AV1	0-1000	
			550	AV2	0-1000	
			550	S-Video	0-1000	
			550	VGA	0-1000	
			550	Component1	0-1000	
			550	Component2	0-1000	
			600	HDMI1	0-1000	
			600	HDMI2	0-1000	
			600	HDMI3	0-1000	
		Saturation Min	0	TV	0-1000	Min Saturation
			0	AV1	0-1000	
			0	AV2	0-1000	
			0	S-Video	0-1000	
			0	VGA	0-1000	
			0	Component1	0-1000	
			0	Component2	0-1000	
			0	HDMI1	0-1000	
			0	HDMI2	0-1000	
			0	HDMI3	0-1000	
		Saturation Mid	575	TV	0-1000	Mid Saturation
			550	AV1	0-1000	
			550	AV2	0-1000	
			550	S-Video	0-1000	
			700	VGA	0-1000	
			575	Component1	0-1000	
			575	Component2	0-1000	
			575	HDMI1	0-1000	
			575	HDMI2	0-1000	
			575	HDMI3	0-1000	
		Saturation Max	800	TV	0-1000	Max Saturation
			800	AV1	0-1000	
			800	AV2	0-1000	
			800	S-Video	0-1000	
			800	VGA	0-1000	
			800	Component1	0-1000	
			800	Component2	0-1000	
			800	HDMI1	0-1000	
			800	HDMI2	0-1000	

			800	HDMI3	0-1000	
		Hue Min	0	TV	0-1000	Min Hue
			0	AV1	0-1000	
			0	AV2	0-1000	
			0	S-Video	0-1000	
			0	VGA	0-1000	
			0	Component1	0-1000	
			0	Component2	0-1000	
			0	HDMI1	0-1000	
			0	HDMI2	0-1000	
			0	HDMI3	0-1000	
		Hue Mid	471	TV	0-1000	Mid Hue
			471	AV1	0-1000	
			471	AV2	0-1000	
			471	S-Video	0-1000	
			471	VGA	0-1000	
			471	Component1	0-1000	
			471	Component2	0-1000	
			471	HDMI1	0-1000	
			471	HDMI2	0-1000	
			471	HDMI3	0-1000	
		Hue Max	1000	TV	0-1000	Max Hue
			1000	AV1	0-1000	
			1000	AV2	0-1000	
			1000	S-Video	0-1000	
			1000	VGA	0-1000	
			1000	Component1	0-1000	
			1000	Component2	0-1000	
			1000	HDMI1	0-1000	
			1000	HDMI2	0-1000	
			1000	HDMI3	0-1000	
2	Picture Mode	SOURCE		TV		Display the current source
				AV		
				S-Video		
				VGA		
				Component		
				HDMI		
		Bright Bright	55	TV	0-100	Brightness of Vivid mode
			55	AV1	0-100	
			55	AV2	0-100	
			55	S-Video	0-100	
			55	VGA	0-100	
			55	Component1	0-100	
			55	Component2	0-100	
			55	HDMI1	0-100	
			55	HDMI2	0-100	
			55	HDMI3	0-100	
		Bright Contrast	55	TV	0-100	Contrast of Vivid mode
			55	AV1	0-100	
			55	AV2	0-100	
			55	S-Video	0-100	
			55	VGA	0-100	

			55	Component1	0-100	
			55	Component2	0-100	
			55	HDMI1	0-100	
			55	HDMI2	0-100	
			55	HDMI3	0-100	
		Bright Saturation	55	TV	0-100	Saturation of Vivid mode
			55	AV1	0-100	
			55	AV2	0-100	
			55	S-Video	0-100	
			55	VGA	0-100	
			55	Component1	0-100	
			55	Component2	0-100	
			55	HDMI1	0-100	
			55	HDMI2	0-100	
			55	HDMI3	0-100	
		STD Bright	50	TV	0-100	Brightness of STD mode
			50	AV1	0-100	
			50	AV2	0-100	
			50	S-Video	0-100	
			50	VGA	0-100	
			50	Component1	0-100	
			50	Component2	0-100	
			50	HDMI1	0-100	
			50	HDMI2	0-100	
			50	HDMI3	0-100	
		STD Contrast	50	TV	0-100	Contrast of STD mode
			50	AV1	0-100	
			50	AV2	0-100	
			50	S-Video	0-100	
			50	VGA	0-100	
			50	Component1	0-100	
			50	Component2	0-100	
			50	HDMI1	0-100	
			50	HDMI2	0-100	
			50	HDMI3	0-100	
		STD Saturation	50	TV	0-100	Saturation of STD mode
			50	AV1	0-100	
			50	AV2	0-100	
			50	S-Video	0-100	
			50	VGA	0-100	
			50	Component1	0-100	
			50	Component2	0-100	
			50	HDMI1	0-100	
			50	HDMI2	0-100	
			50	HDMI3	0-100	
		Soft Bright	45	TV	0-100	Brightness of Movie mode
			45	AV1	0-100	
			45	AV2	0-100	
			45	S-Video	0-100	
			45	VGA	0-100	
			45	Component1	0-100	
			45	Component2	0-100	

			45	HDMI1	0-100	
			45	HDMI2	0-100	
			45	HDMI3	0-100	
		Soft Contrast	45	TV	0-100	Contrast of Movie mode
			45	AV1	0-100	
			45	AV2	0-100	
			45	S-Video	0-100	
			45	VGA	0-100	
			45	Component1	0-100	
			45	Component2	0-100	
			45	HDMI1	0-100	
			45	HDMI2	0-100	
			45	HDMI3	0-100	
		Soft Saturation	45	TV	0-100	Saturation of Movie mode
			45	AV1	0-100	
			45	AV2	0-100	
			45	S-Video	0-100	
			45	VGA	0-100	
			45	Component1	0-100	
			45	Component2	0-100	
			45	HDMI1	0-100	
			45	HDMI2	0-100	
			45	HDMI3	0-100	

5.3.3 Sound setting

	Item	Default						Range	Note
		TV	AV/ S-VIDEO	Component	HDMI	VGA	Item		
1	Volume Curve	0	0	0	0	0	Volume Min	0 - 100	When value is 0 Think about the Audio out power before adjusting
		30	27	26	21	26	Volume 20	0-100	When value is 25 Think about the Audio out power before adjusting
		40	37	36	27	36	Volume Mid	0-100	When value is 50 Think about the Audio out power before adjusting
		63	56	56	41	56	Volume 80	0-100	When value is 75 Think about the Audio out power before adjusting
		100	87	84	56	84	Volume Max	0-100	When value is 100 Think about the Audio out power before adjusting

2	Audio Mode	**Standard**	Item	Range	**Different Values for different Audio Mode**
		0	**120HZ**	**-10 - 10**	
		0	**500HZ**	**-10 - 10**	
		0	**1.5kHZ**	**-10 - 10**	
		0	**5kHZ**	**-10 - 10**	
		0	**10kHZ**	**-10 - 10**	
		Speech	Item	Range	**Different frequencies for different Audio Mode**
		-2	**120HZ**	**-10 - 10**	
		4	**500HZ**	**-10 - 10**	
		0	**1.5kHZ**	**-10 - 10**	
		-7	**5kHZ**	**-10 - 10**	
		-10	**10kHZ**	**-10 - 10**	
		Music	Item	Range	**Different frequencies for different Audio Mode**
		5	**120HZ**	**-10 - 10**	
		0	**500HZ**	**-10 - 10**	
		-2	**1.5kHZ**	**-10 - 10**	
		3	**5kHZ**	**-10 - 10**	
		5	**10kHZ**	**-10 - 10**	

6. Software Upgrading

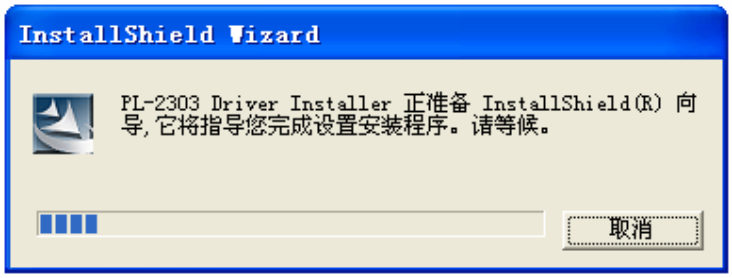
The software is upgraded by a burning tool-MtkTool, which can burn the program file *.bin to the main board of the unit.

6.1 Get ready for upgrading

6.1.1 Install the driver

Double click the icon

, install the driver.



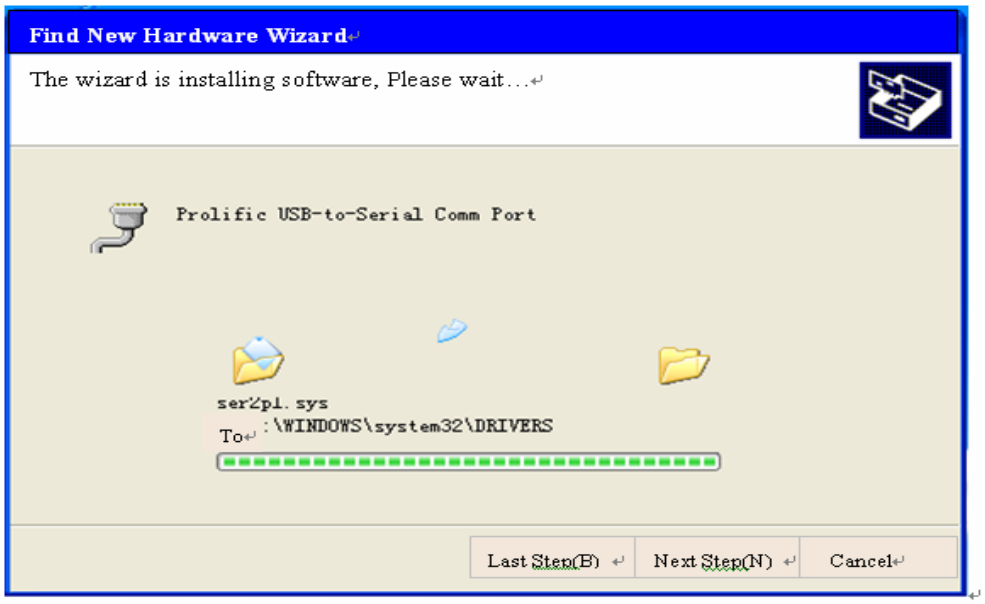
Select the default value, the driver will be installed step by step.

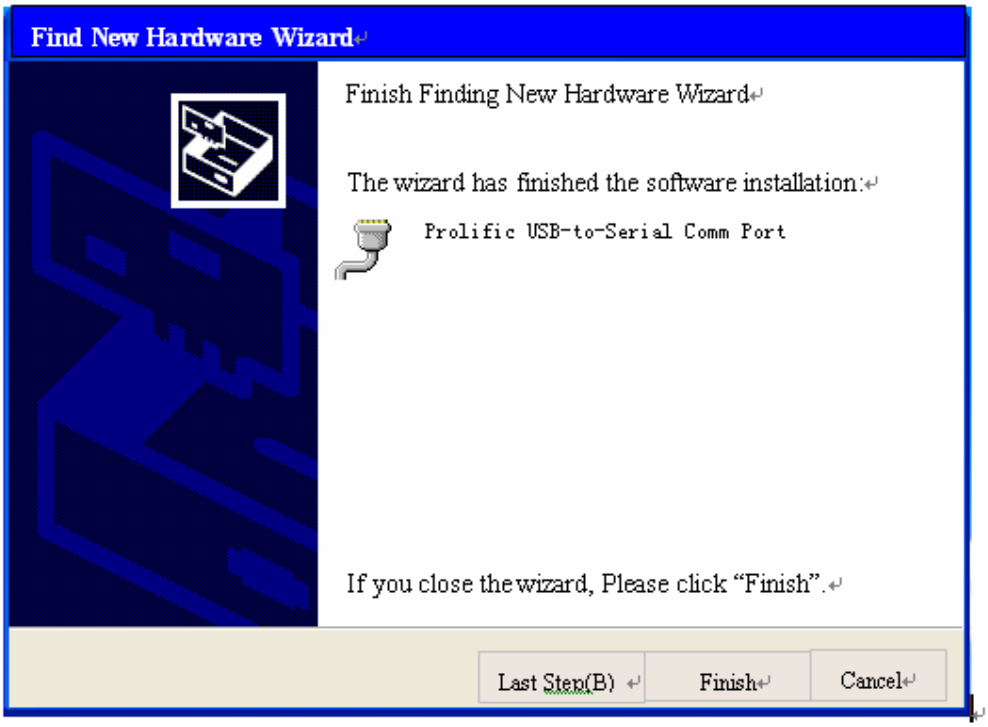
6.1.2 Hardware connecting

Connect the unit to your pc with a USB-to-series port cable. USB port connects to the pc, and series port connects to RS232 of TV

For the first connecting, the PC will recognize and automatically install the USB device. The process is just like the installation of a mini disk, see the following picture.

Note: The driver adopts serial port driver.


Find New Hardware Wizard
The wizard is installing software, Please wait...
Prolific USB-to-Serial Comm Port
ser2pl.sys
To:\WINDOWS\system32\DRIVERS
Last Step(B)
Next Step(N)
Cancel

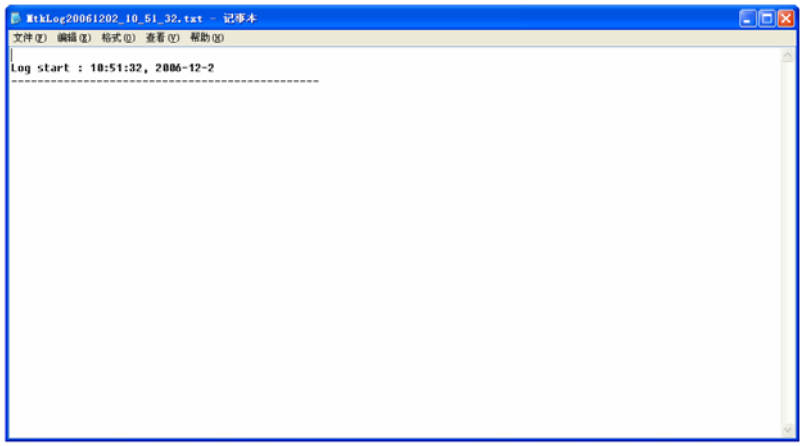

Find New Hardware Wizard
Finish Finding New Hardware Wizard
The wizard has finished the software installation:
Prolific USB-to-Serial Comm Port
If you close the wizard, Please click "Finish".
Last Step(B)
Finish
Cancel

6.2 Upgrading with the MtkTool

MTKtool is a green program needing no installation. It is saved in the folder

. There are five folders/files in this folder altergether.

The MtkTool using log is restored in the MtkLog folder. It records the running time and date whenever the tool is used. The log will be a txt file named by the date and time.



After connecting the TV with your PC, double click

icon, open the MtkTool.

If following error appears, it means the related port is not be set properly.

Ignore these errors, click “Confirm” and enter the MtkTool main interface, see the following picture.

Flash chip model

Please refer to follow steps to update the software:

1—Select mode of Flash chip to MT538X as the below picture.

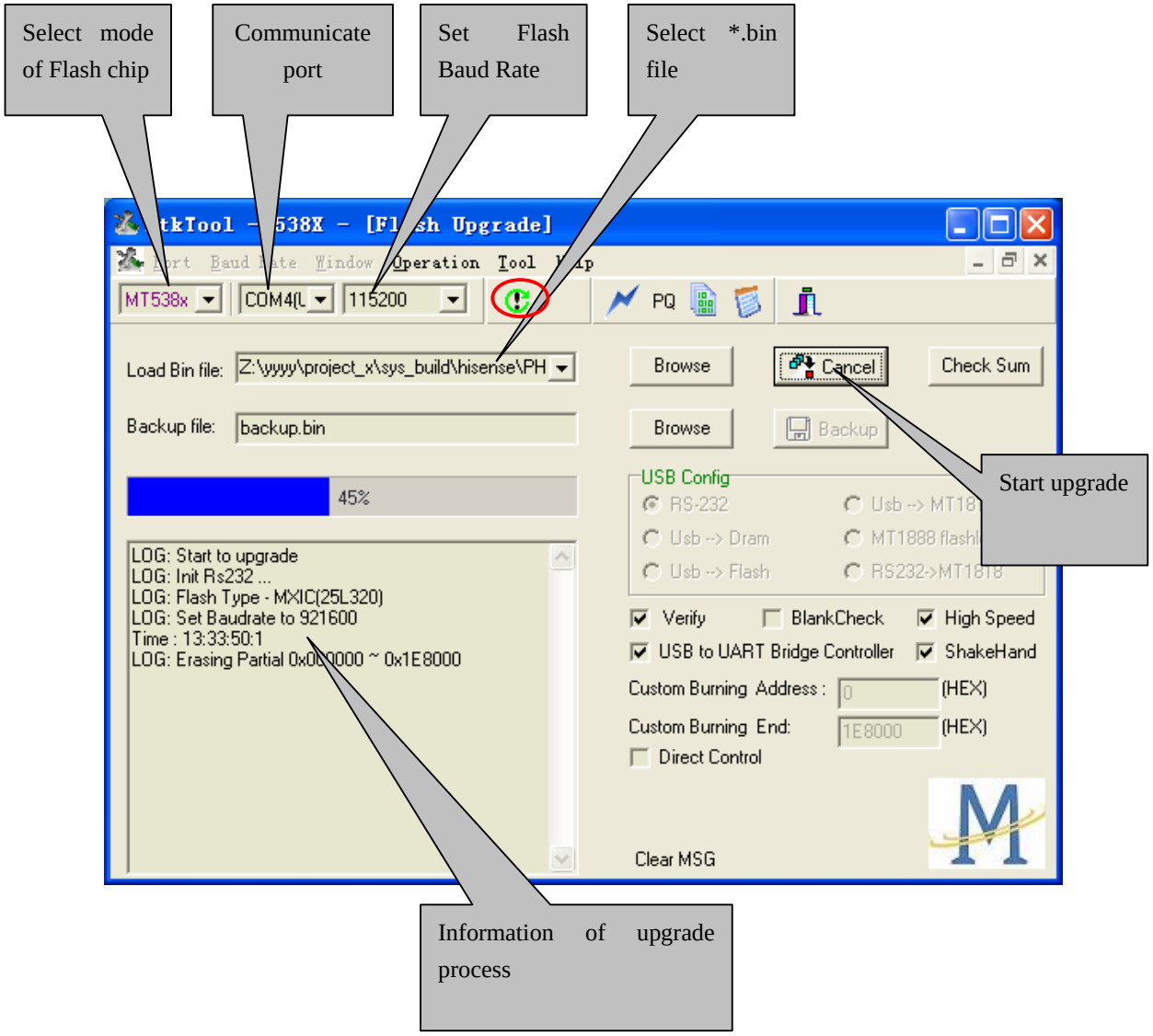
2—Refer to the next page instruction to select the communicate port.

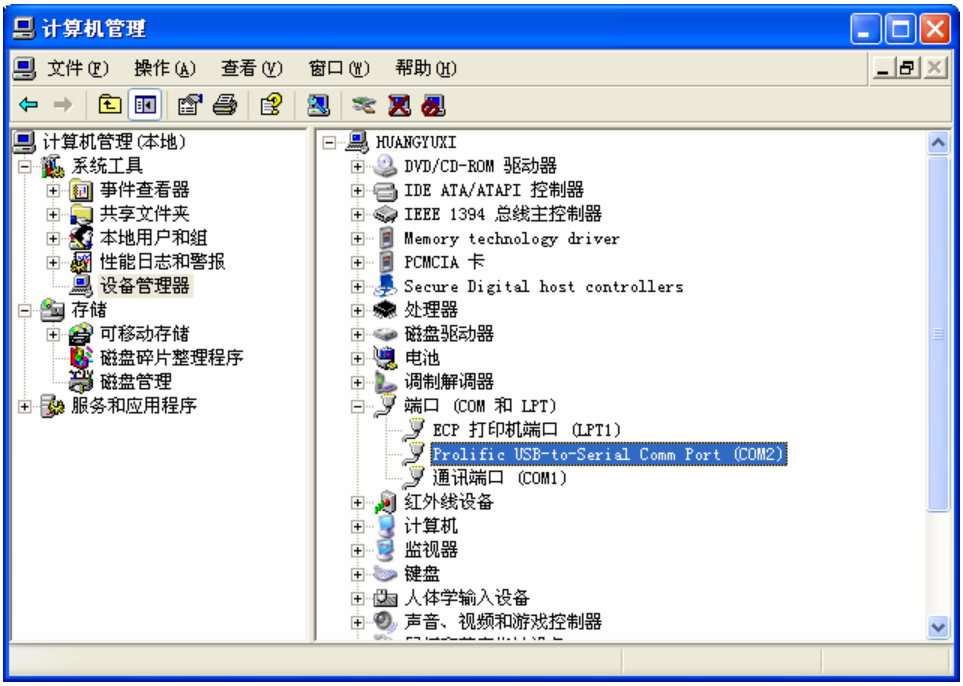
3—Press the icon beside the baud rate and make sure it is green as the below picture.

4—Set the flash baud rate to 115200 as the below picture.

5—Click the browse button to select the *.bin file that will be updated.

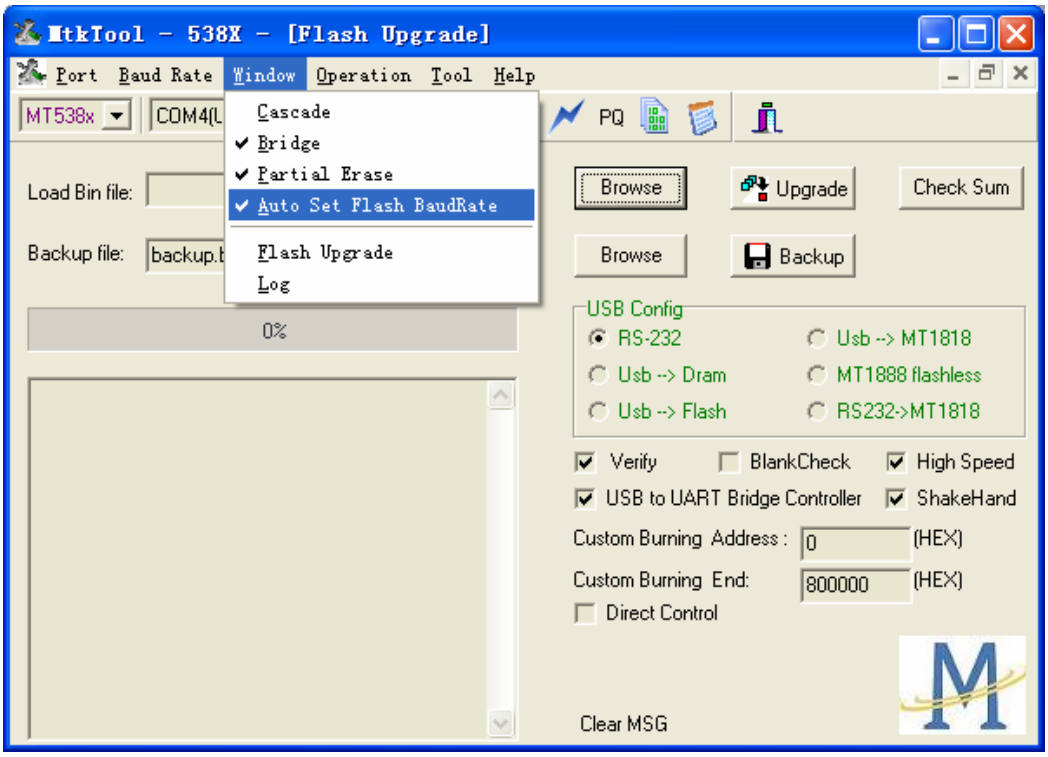
6—Click the “start” button to update software.





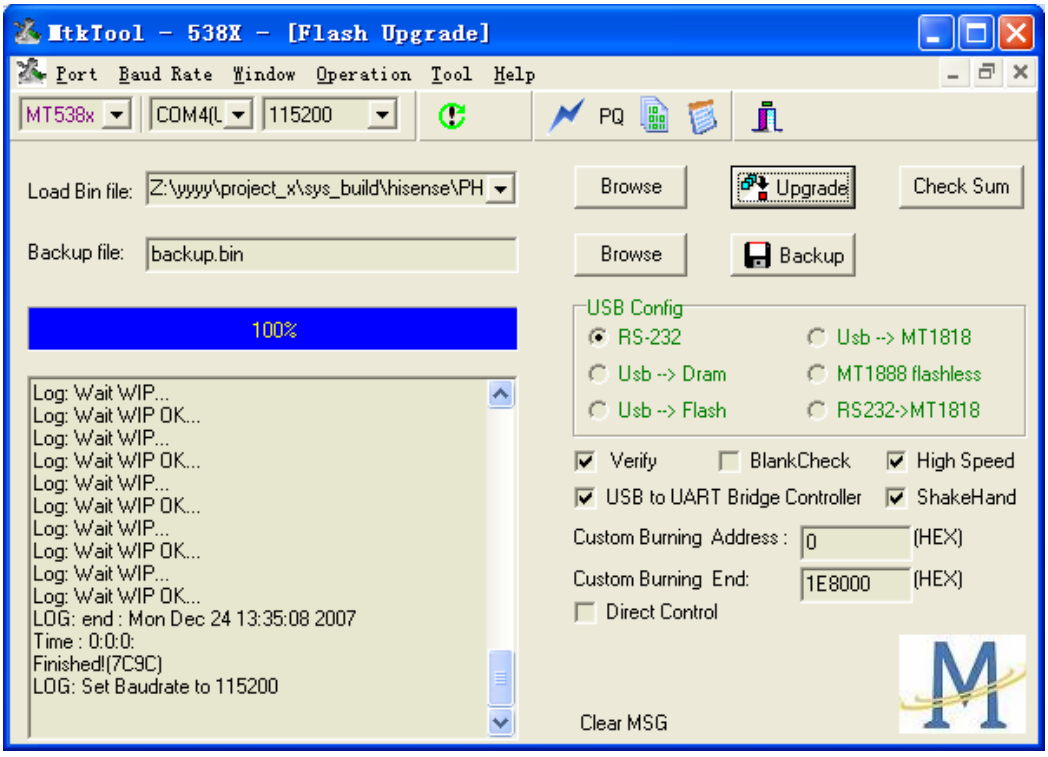
Open “Device Manager” and find which port is connected with the TV. In above picture, COM2 is connected to the TV; so, select “COM2” in the MtkTool main interface. Select the right baud rate according to chip model. For this unit(chip model is MT538X), select 115200.

Note: Where or not click the “Auto Set Flash Baud Rate” in the “window” menu depends on the chip type. If the flash chip does not support high speed transport, do not select this option; otherwise, reserve the selected mood.



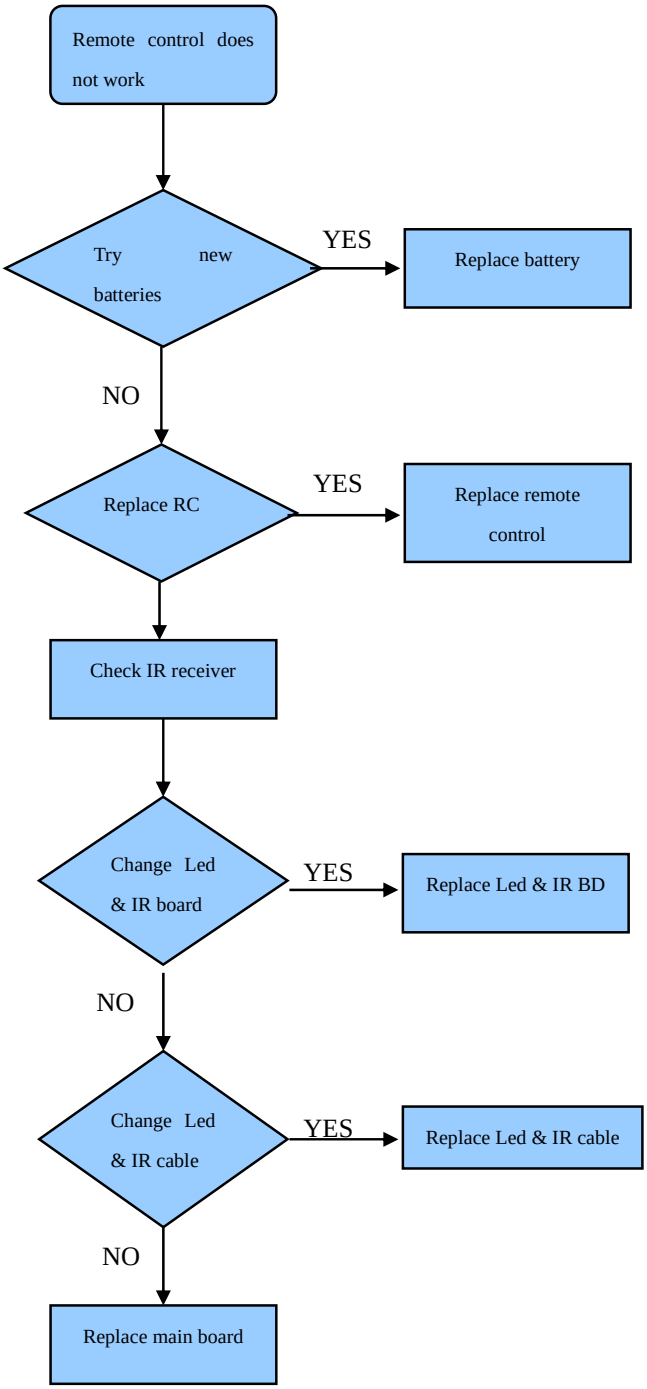
Click “Browse” button, find the upgrading program file, and select it. Press “Upgrade” button and start upgrading.

The following interface appears on the screen, indicating upgrading successfully.

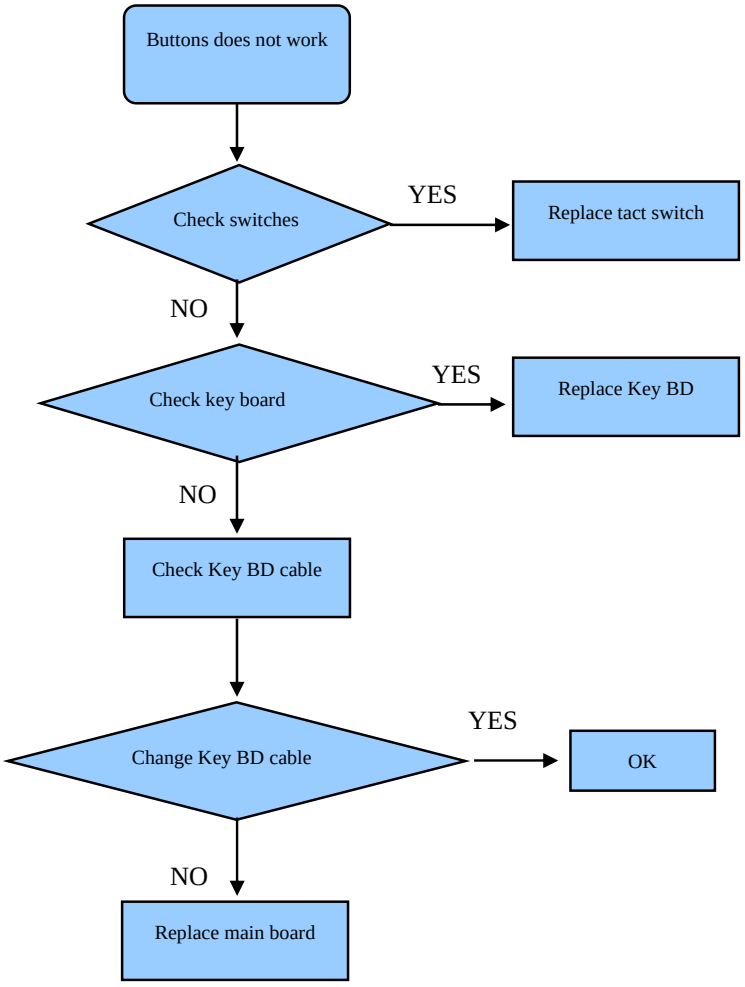


7. Troubleshooting

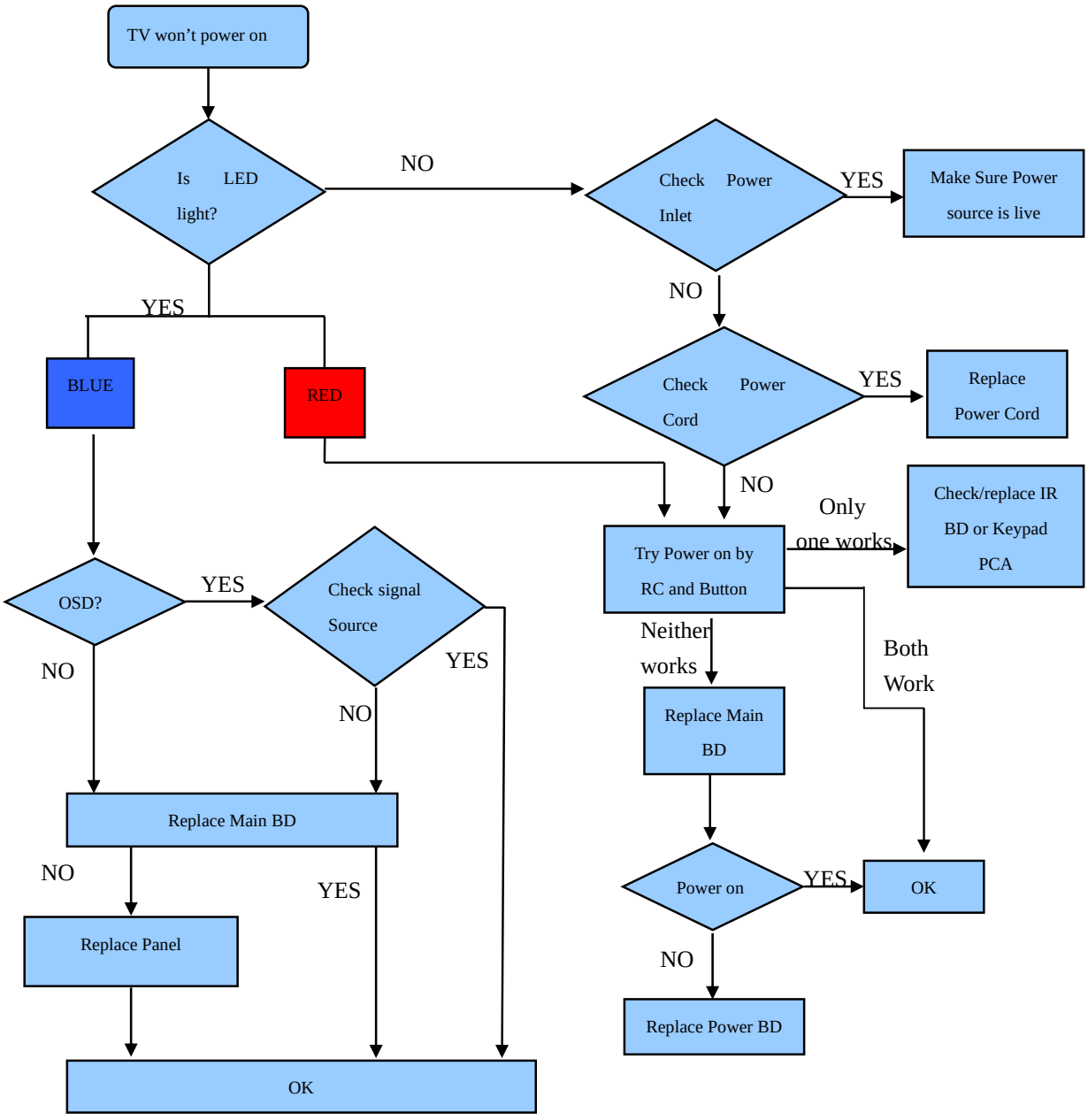
7.1 Troubleshooting for Remote Control



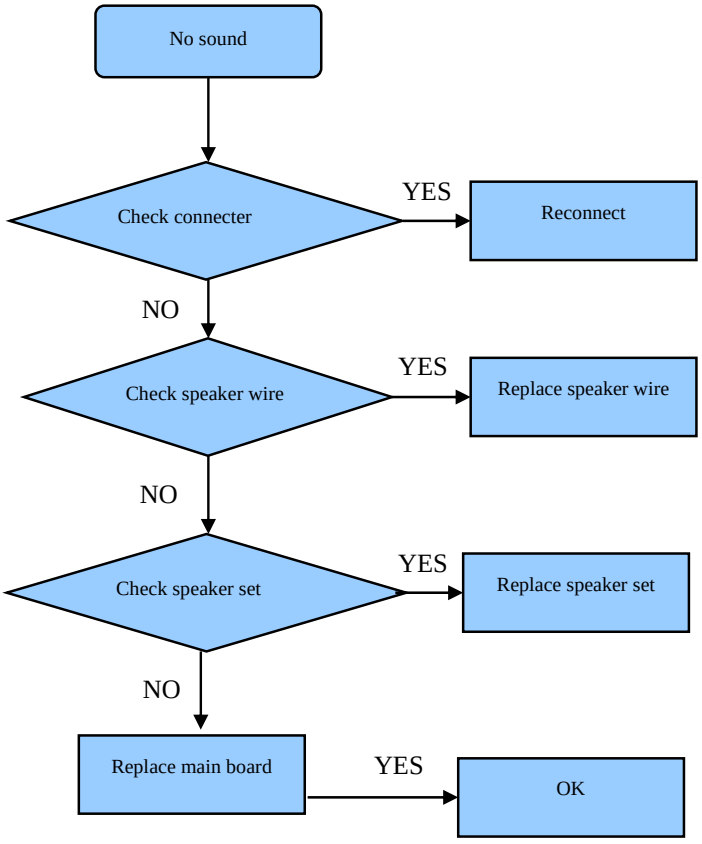
7.2 Troubleshooting for Function Key



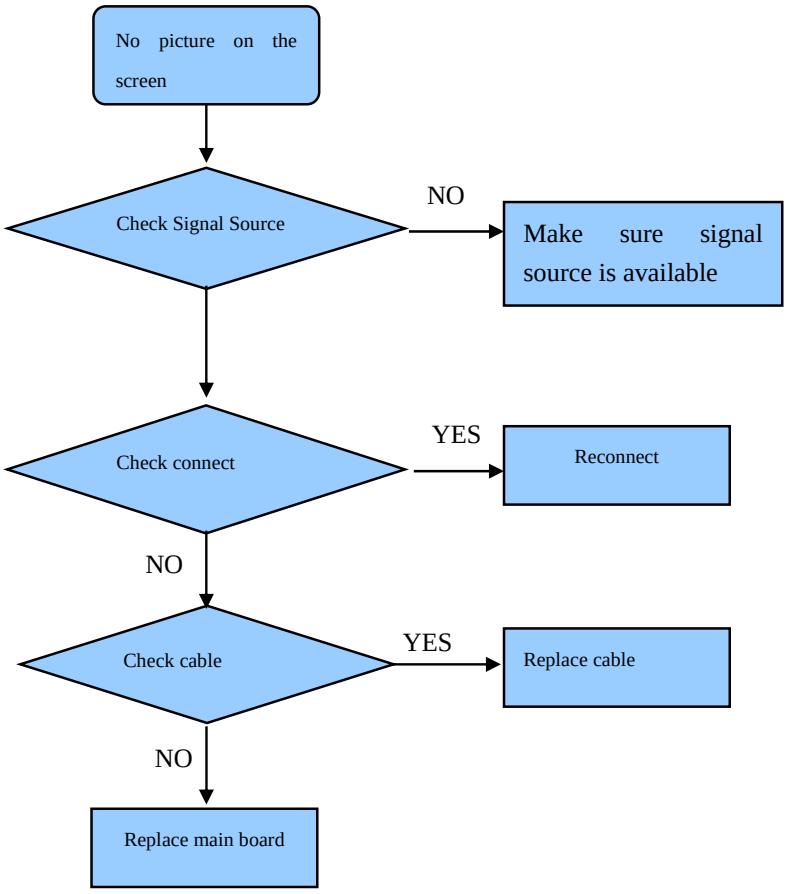
7.3 TV won't Power On



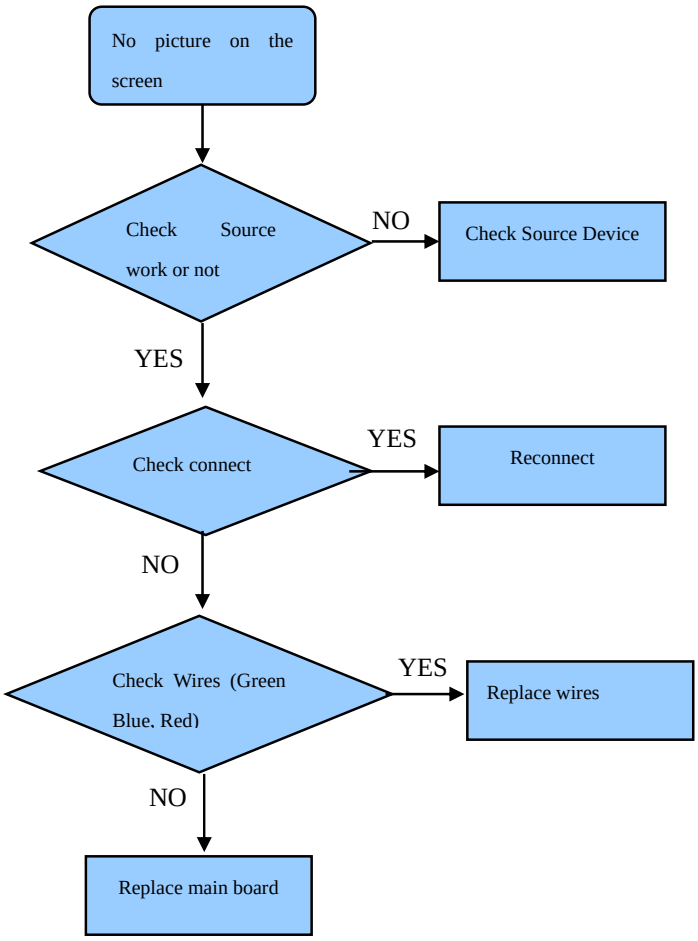
7.4 Troubleshooting for Audio



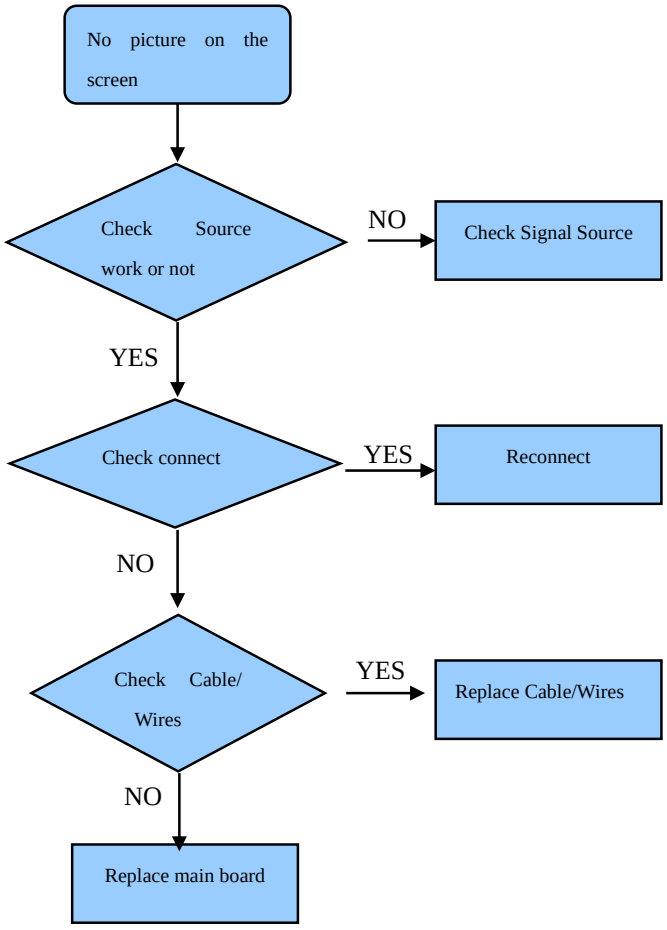
7.5 Troubleshooting for TV/VGA/HDMI input



7.6 Troubleshooting for YPbPr input



7.7 Troubleshooting for Video/S-Video input



7.8 Others Troubleshooting

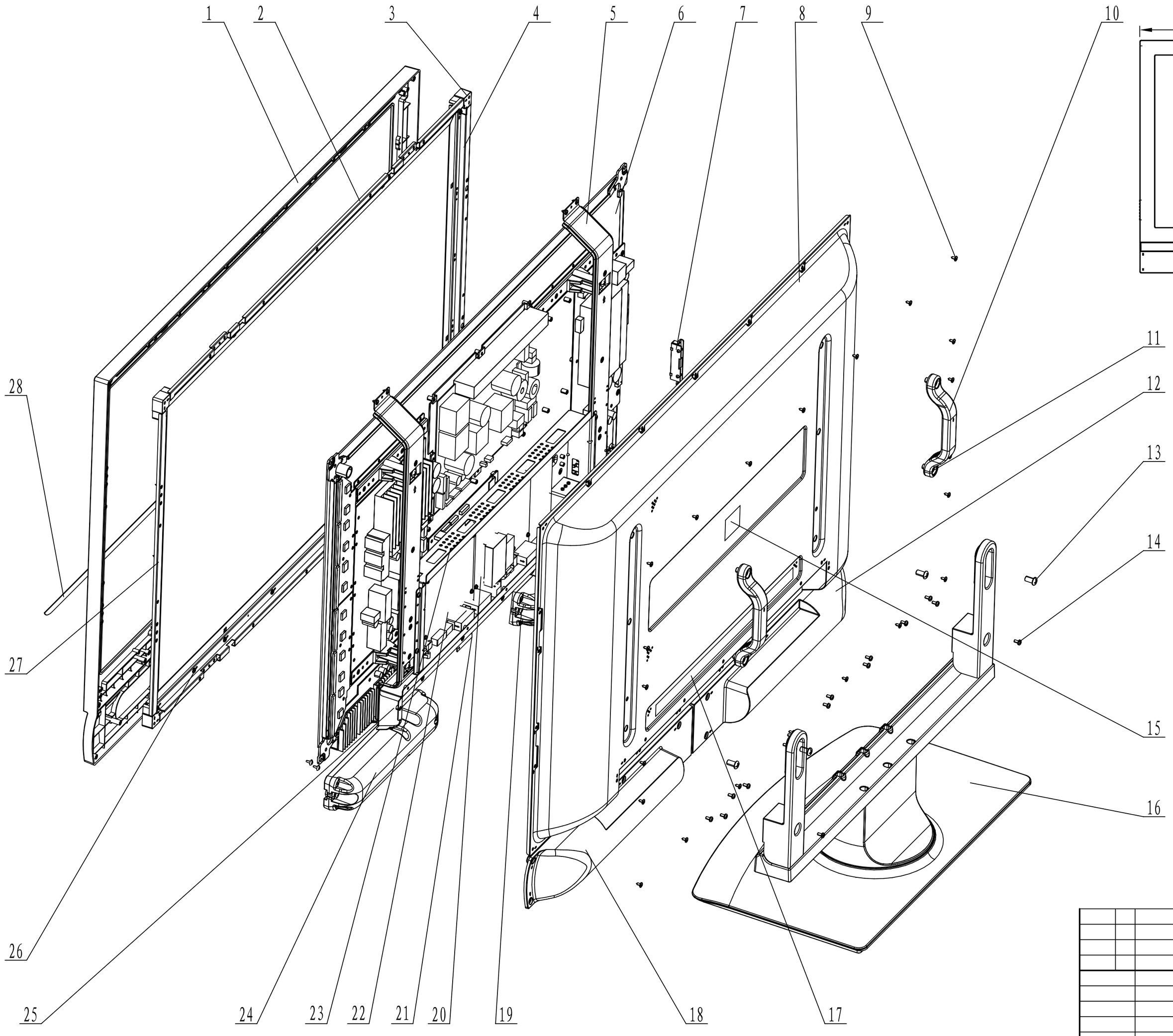
Before calling a service technician, please check the following table for a possible cause of the problem and some solutions.

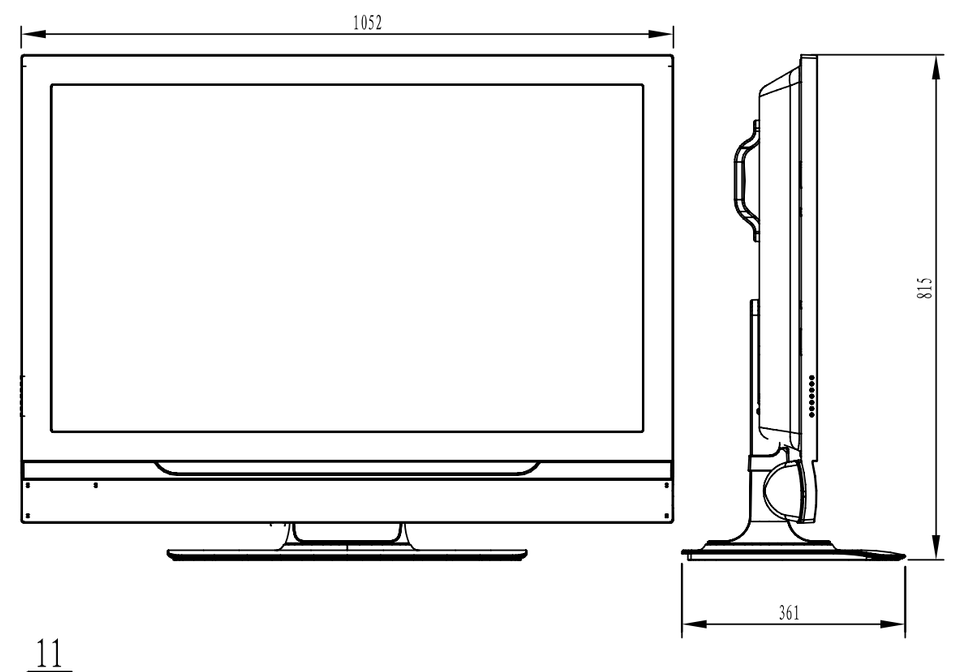
Symptoms	Possible Solutions
TV will not turn on	• Make sure the power cord is plugged in, then press [Power]. • The remote control batteries may be dead. Replace the batteries.
No picture, no sound	• Check if you have set the off timer. • Check the antenna/cable connections. • Press [Display] to see if you have select the right signal source.
No sound, picture OK	• The sound may be muted. Press [VOL+] on the remote control or. • The station may have broadcast difficulties. Try another channel. • Check the speakers cable connections.
Poor sound, picture OK	• The station may have broadcast difficulties. Try another channel • Check the speakers cable connections.
Poor picture, sound OK	• Check the antenna connections. • The station may have broadcast difficulties. Try another channel. • Adjust the picture from the menu.
Unable to select a certain channel	• The channel may be skipped. Choose this channel by number bottons directly.
Poor colour or no colour	• The station may have broadcast difficulties. Try another channel. • Adjust Saturation in the Vedio settings menu.
The remote control does not operate	• There may be an obstruction between the remote control and the remote control sensor. • The batteries may be installed with a wrong polarity. • The remote control batteries may be dead. Replace the batteries.
Disorder display at power on	• This may be caused by too short interval between power off and on. Unplug the power and restart.

8. Explode View

9. Schematic circuit diagram

RSAG2.025.691





PC NO	代　号	PART NAME	QTY	DECRIPTIONS
28	RSAG8.647.218	DECORATE BRACKET	1	
27	RSAG8.048.064	FRONT CABINET FRAME	1	
26	SJ2825-87 ST3X10C	SCREW	26	
25	RSAG6.150.293	AV BRACKET	1	
24	WG5.834.002	SOUND BOX ASM	2	
23	RSAG6.150.292	SINGNAL BRACKET	1	
22	RSAG2.908.1080	PORT BOARD GROUPWARE	1	
21	RSAG2.908.1081\924	REMOVE and KEY CONTROL GROUPWARE	1	
20	RSAG2.908.1072	MAIN BOARD	1	
19	SJ2838-87 ST4X16C.II	SCREW	4	
18	RSAG7.013.089	SPEAKER_REAR CABINET	1	
17	RSAG8.804.3019	SCUTCHEON	1	
16	RSAG6.121.050	BASE	1	
15	RSAG8.807.3126	NAMEPLATE	1	
14	GB818/T-2000 M5X12	SCREW	2	
13	SJ2828-87 M8X15	SCREW	2	
12	RSAG7.013.088	SPEAKER_REAR CABINET	1	
11	SJ2828-87 M8X15	SCREW	4	
10	RSAG8.671.004	HANDLE	2	
09	SJ2824-87 ST4X12F	SCREW	22	
08	RSAG8.074.352	REAR CABINET	1	
07	RSAG8.078.407	BRACKET	1	
06	PDP42X4	PANNEL	1	
05	RSAG6.150.179	BRACKET	2	
04	RSAG8.048.065	FRONT CABINET FRAME	1	
03	RSAG8.038.677	BRACKET(CORNER BRACKET)	4	
02	RSAG8.048.066	FRONT CABINET FRAME	2	
01	RSAG8.074.384	FRONT CABINET	1	

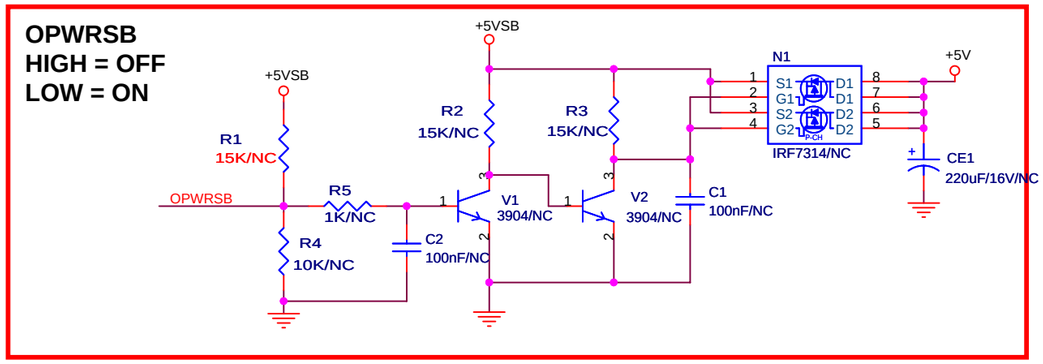
PLX-4202B

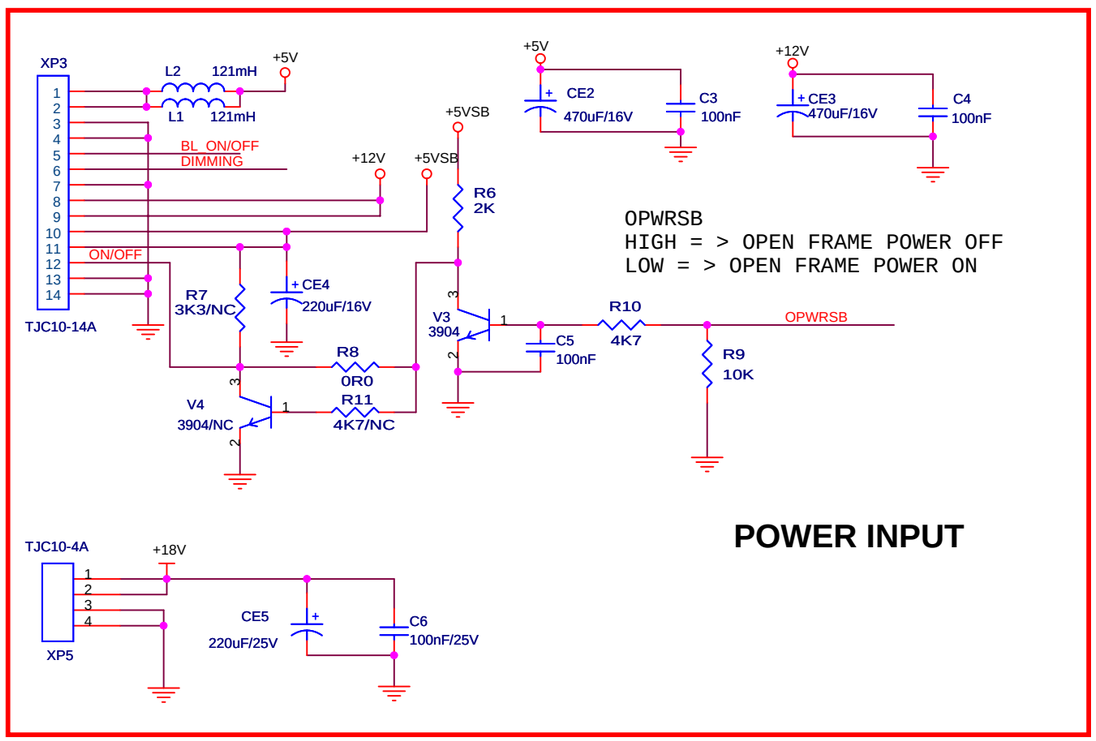
RSAG2.025.691

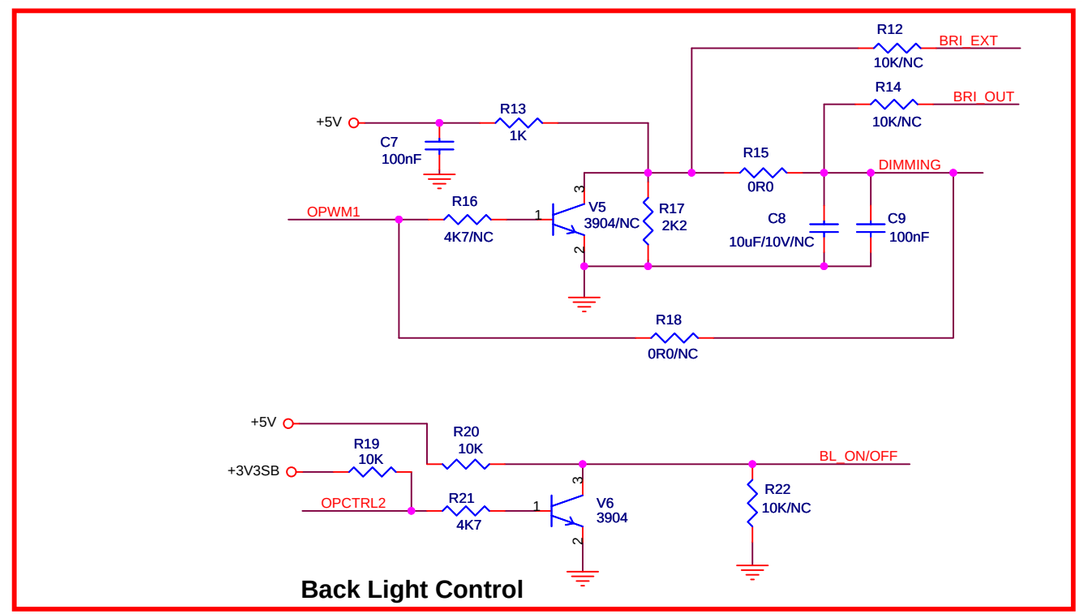
01:INDEX/POWER IN
02:DIGITAL/ANALOG POWER
03:MT5380PERIPHERAL
04:DDR1 MEMORY
05:FLASH/JTAG/UART
06:ANALOG PLL/USB2.0/TUNER
07:LINE OUT/HP
08:AMP/MUTE
09:LVDS/HEADPHONE
10:YPBPR INPUT
11:VGA IN/LR
12:HDMI INPUT
13:AV/SV IN FROM AV BOARD
14:IR/KEY/BLKON/DIMMING
E1:REVISION HISTORY
E2:BLOCK DIAGRAM

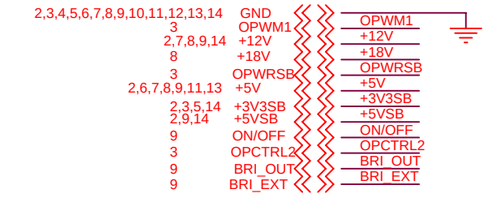
GPIO Definition	
GPIO_0	SYSTEM EEPROM WP PROTECT
GPIO_1	HDMI EDID WP
GPIO_3	USB POWER EN
GPIO_4	LG PDPDISPEN
GPIO_5	4052 AV1/AV2 SW
GPIO_6	VGA DDC WP PROTECT
GPIO_7	HDMI HDP
GPIO_8	HDMI CHIP_POWER
GPIO_9	TCOM POWER CONTROL
GPIO_10	USB POWER EN
GPIO_11	4052 AV1/AV2 SW
GPIO_12	U2RX /NC
GPIO_13	U2TX /NC
OPCTRL0	CEC FUNCTION
OPCTRL1	power LED
OPCTRL2	BLK ON/OFF
OPCTRL3	soft mute control
OPCTRL4	trap mode
OPCTRL5	trap mode
OPWRSB	POWER IN ON/OFF
ADIN0	PWRDET
ADIN1,2	key pad
ADIN3	Tuner AFT
ADIN4	NC
OIRI	IR

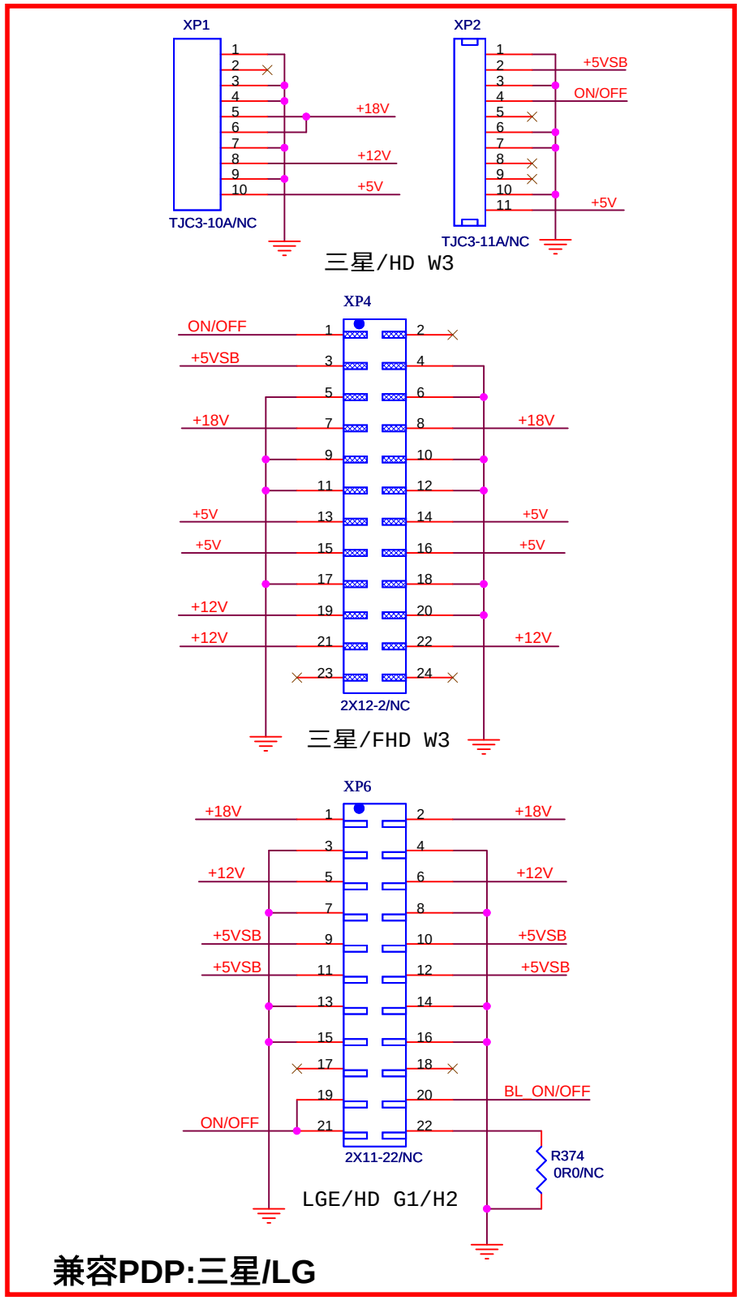
GPIO Definition	
RF_AGC	NC
IF_AGC	IF AGC FOR TUNER











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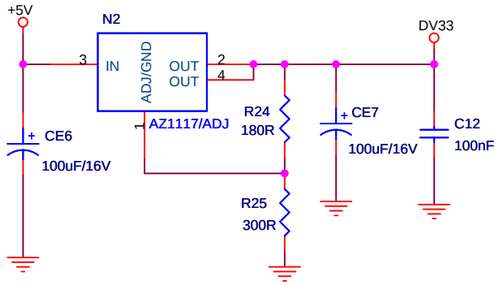
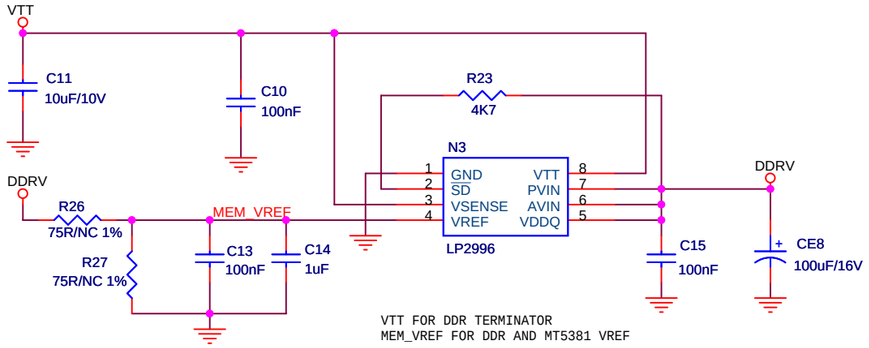
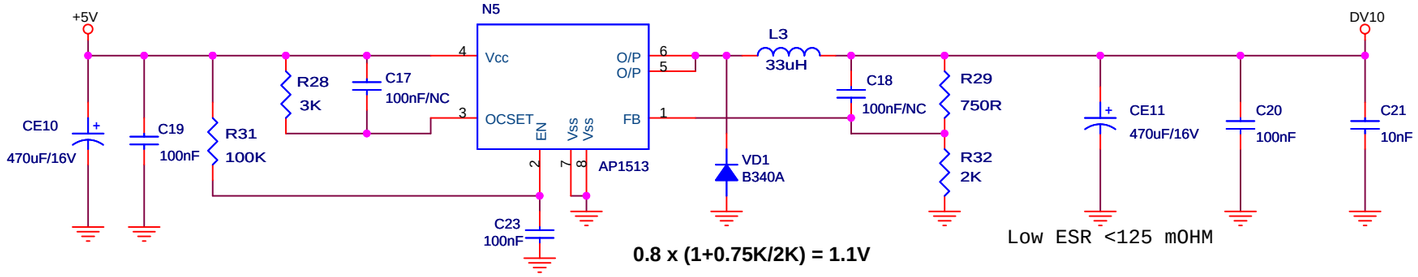
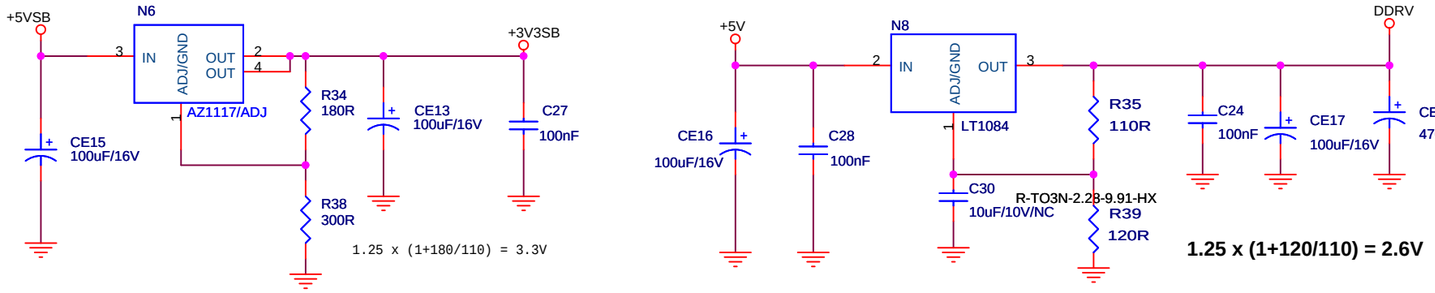
Tel:86-755-26532018
Fax:86-755-26532013

Title: INDEX/POWER IN		
Size: A3	Document Number: <Doc>	Rev: 1.1
Date: Wednesday, April 16, 2008	Sheet 1 of 14	

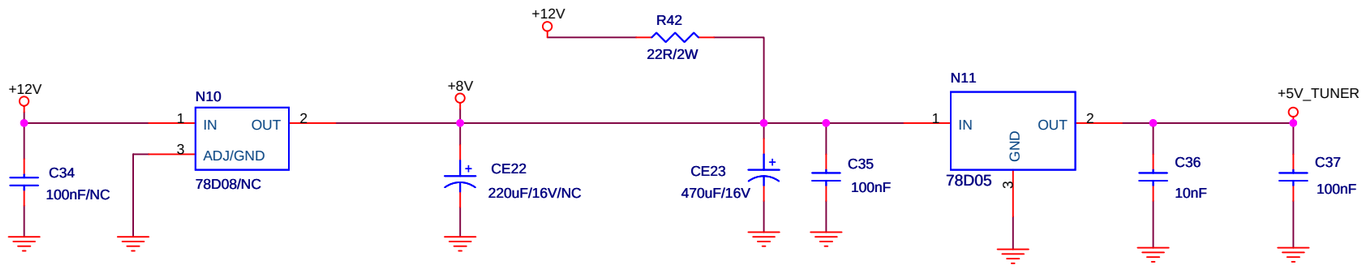




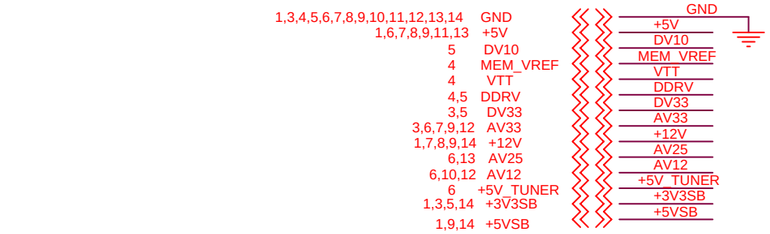


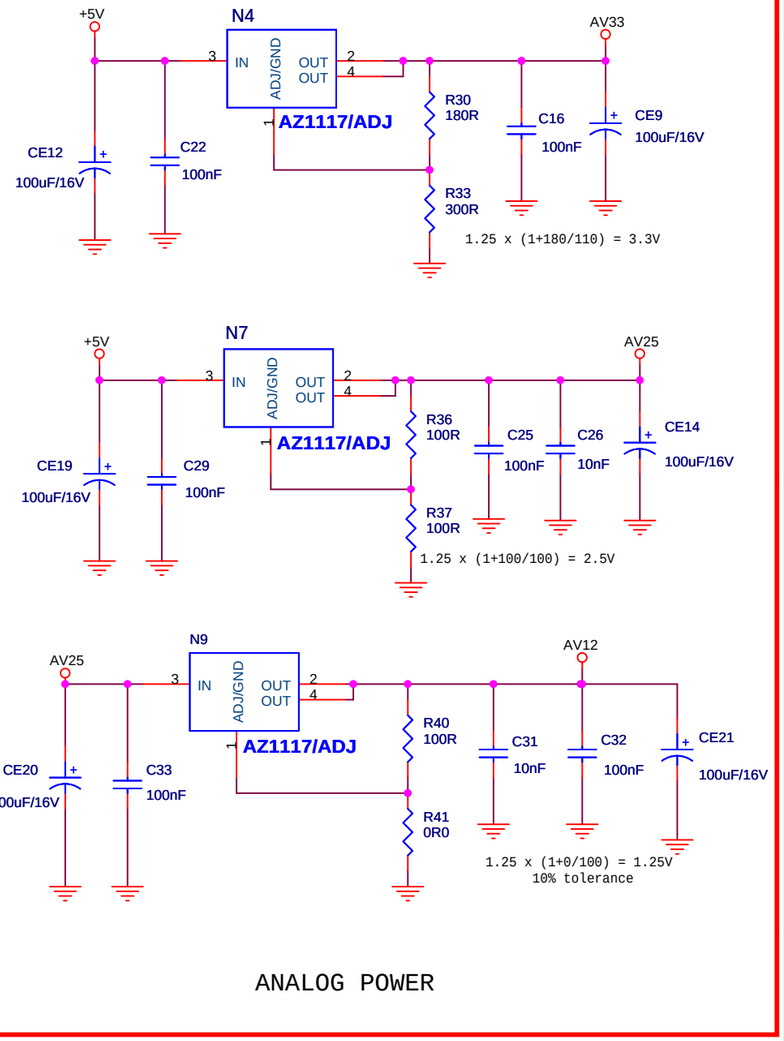


DIGITAL POWER



POWER SUPPLY +5V FOR TUNER





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Fax:86-755-26532013

Title: DIGITAL/ANALOG POWER		
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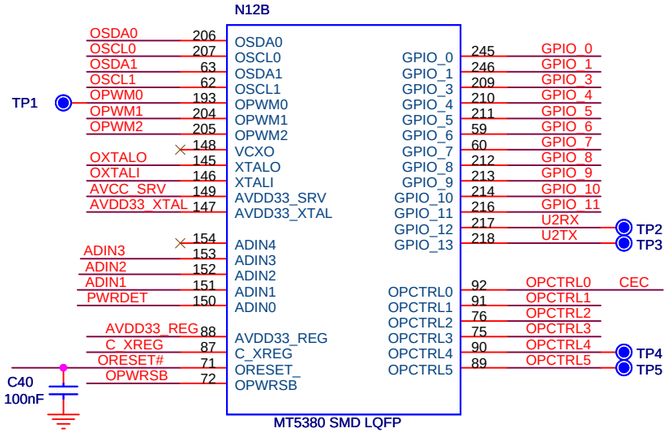
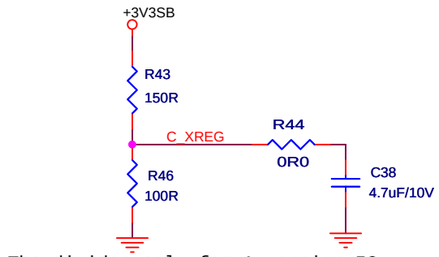
Date: Wednesday, April 16, 2008	Sheet 2 of 14	





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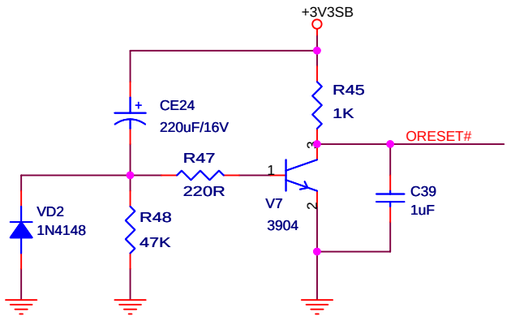
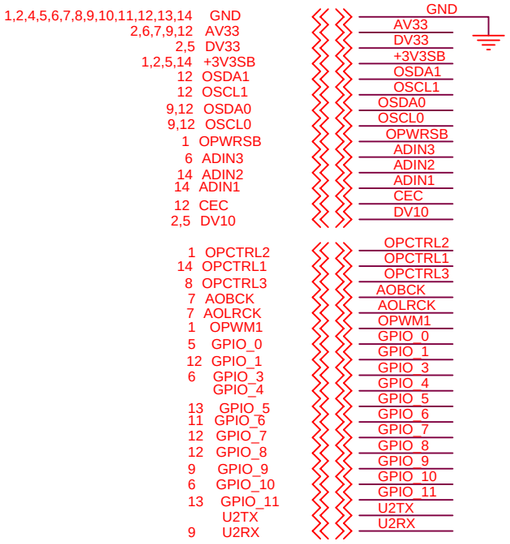
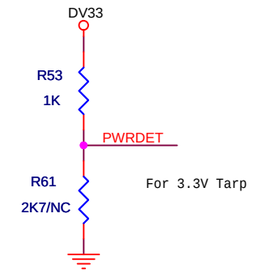
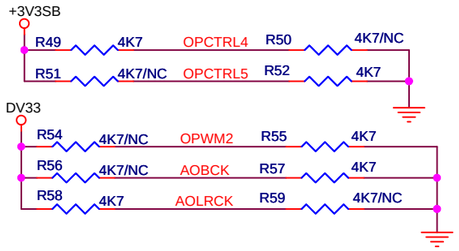


Adjust the power on timing





For 3.3V Tarp



Trap Mode	OPWM2	AOBCK	AOLRCK
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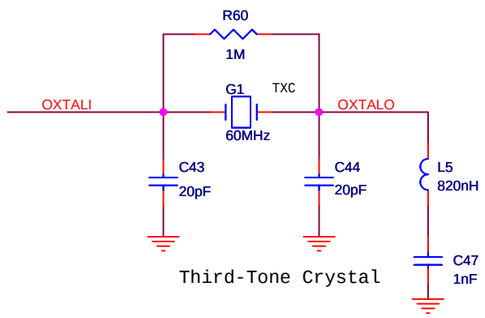
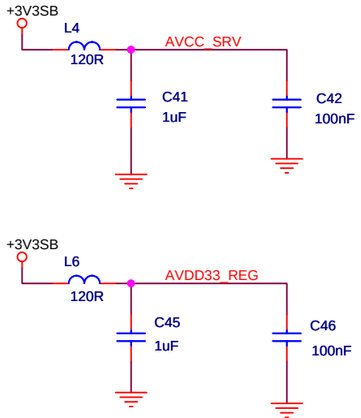
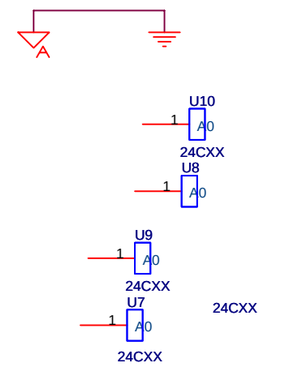
ICE mode	0	0	1

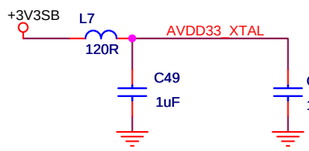
Trap Mode	OPCTRL5	OPCTRL4
Core Reset 1 us	0	1

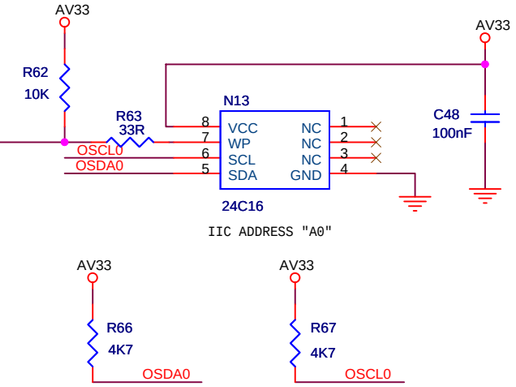


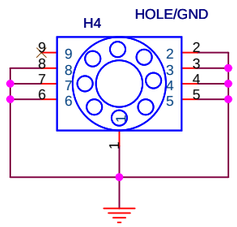
Third-Tone Crystal

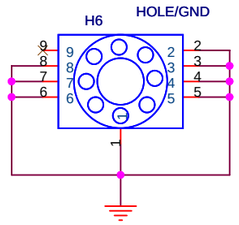


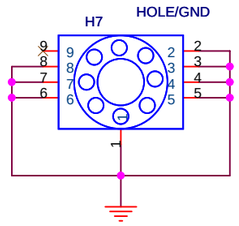


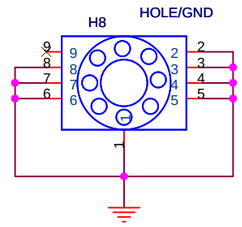


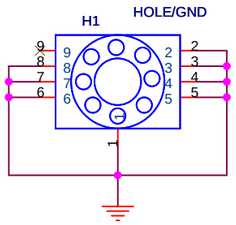


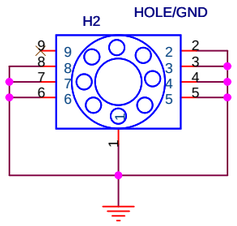


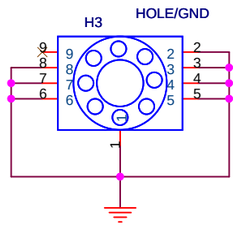


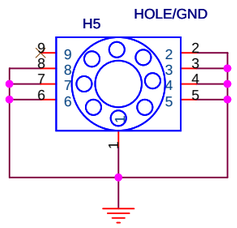


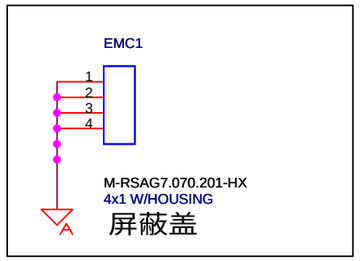












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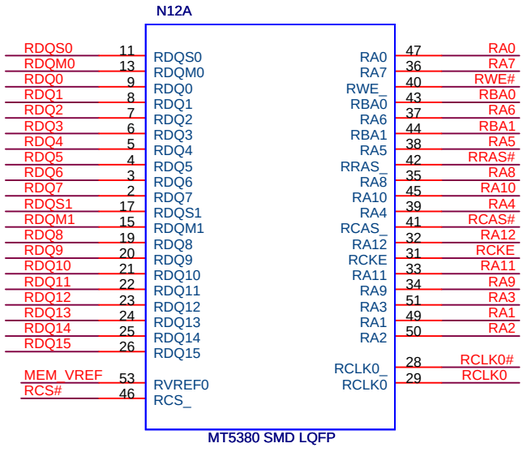

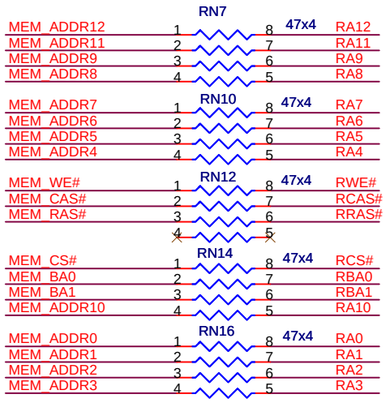

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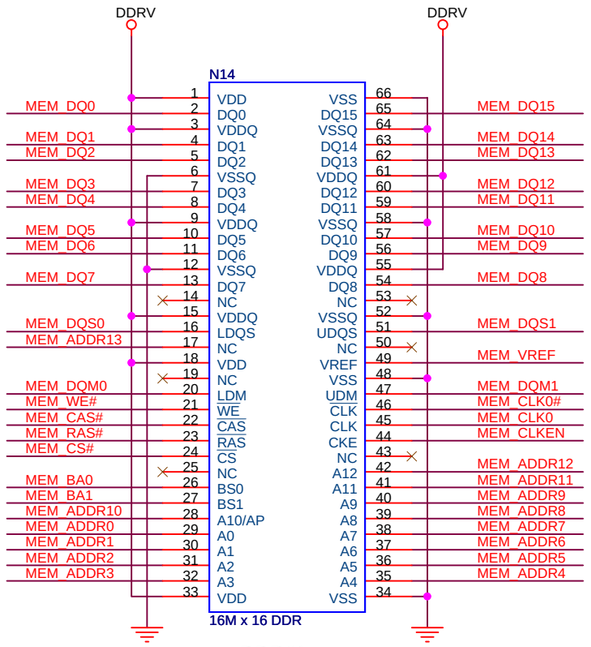

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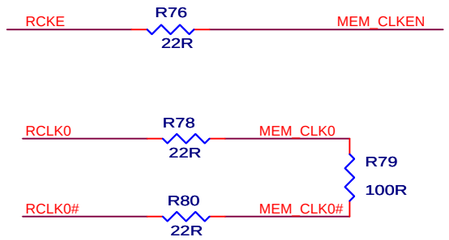

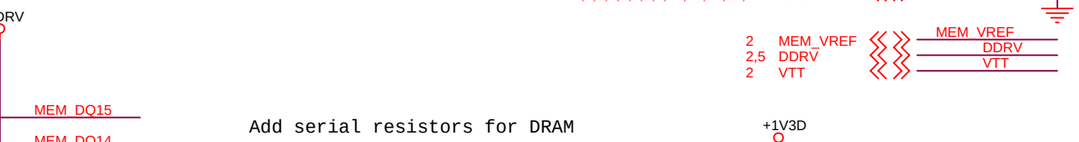

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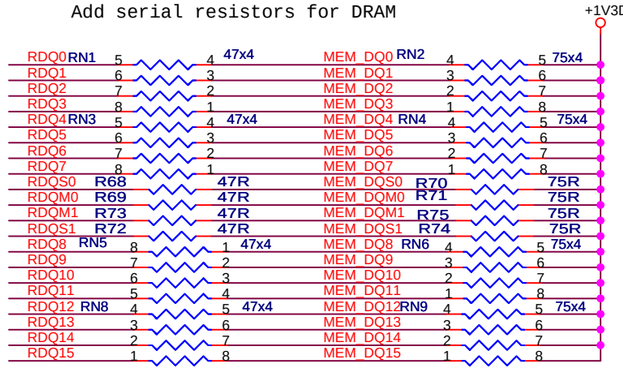

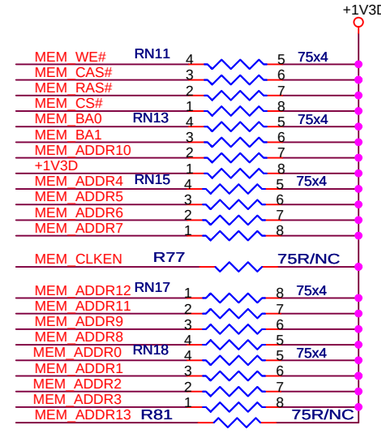

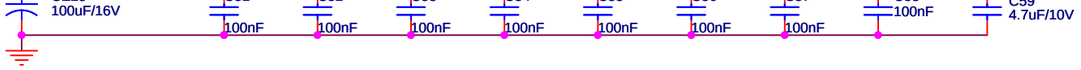

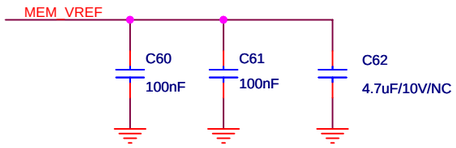

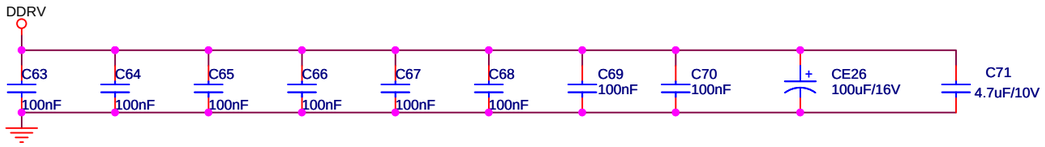

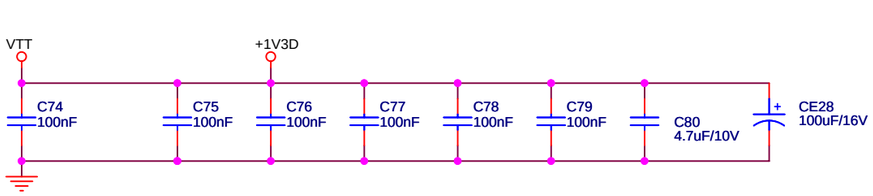

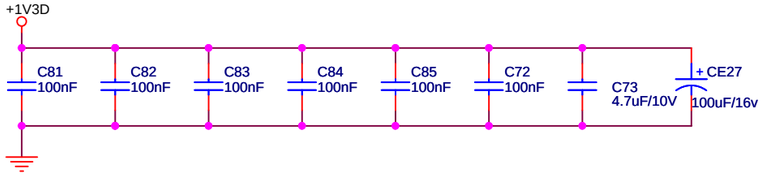

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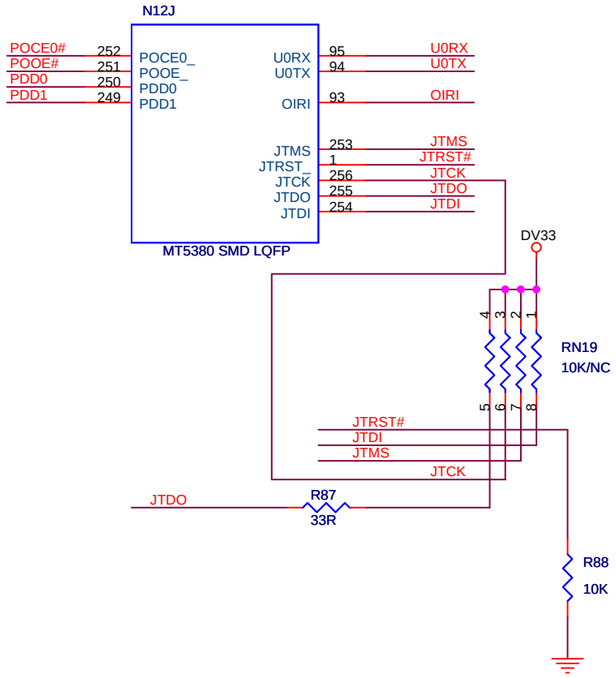

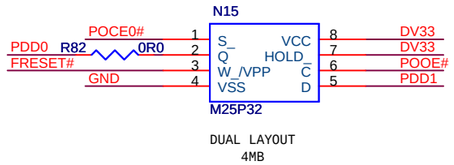

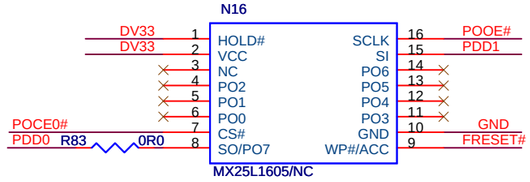

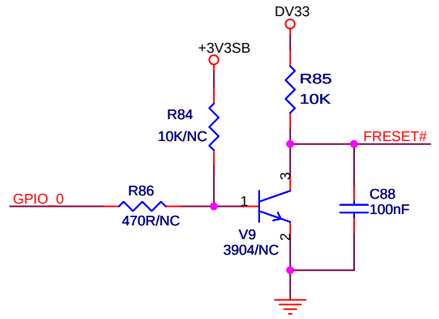

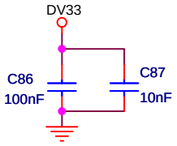

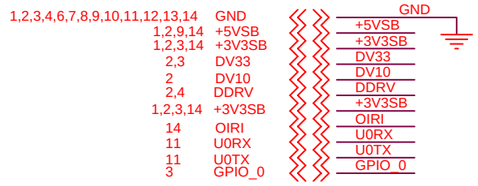

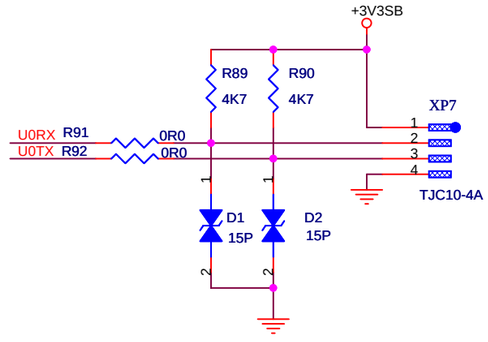

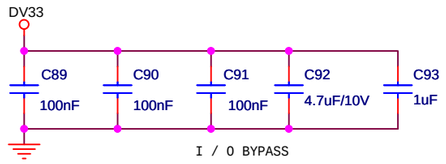

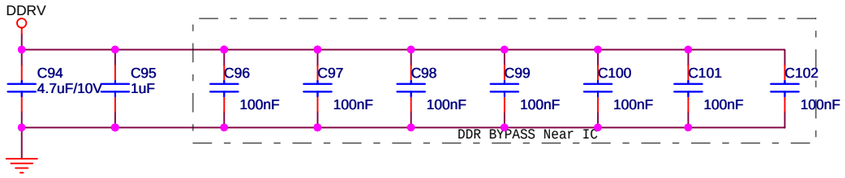

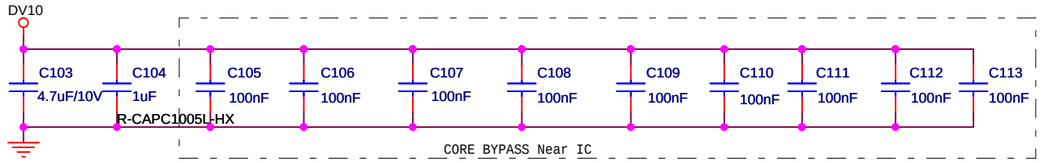

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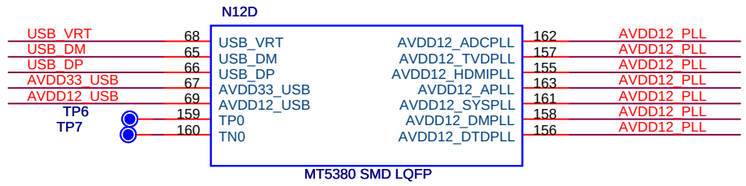

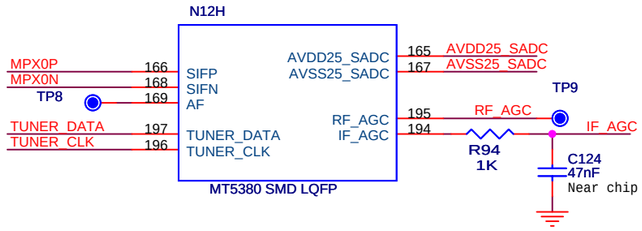

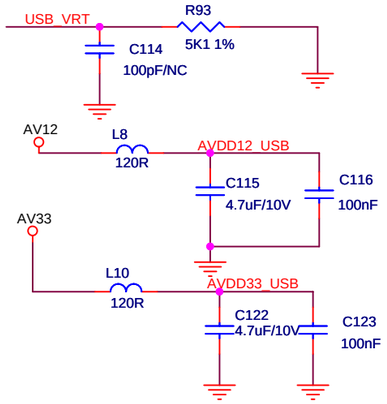

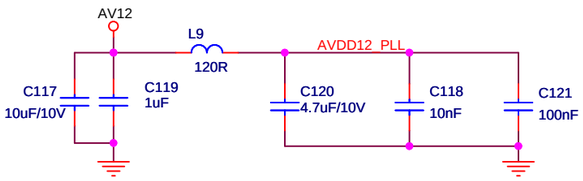

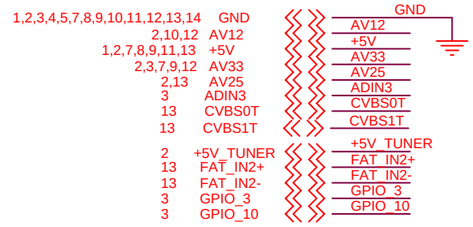

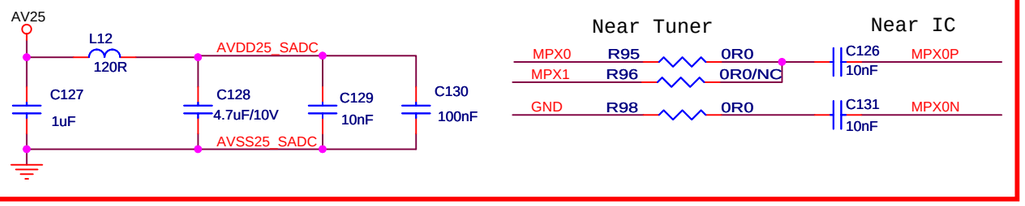

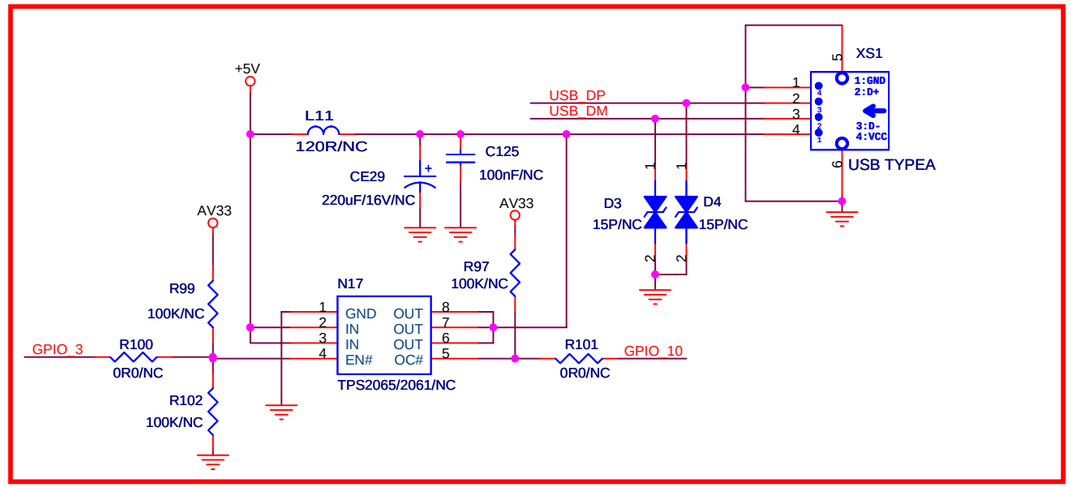

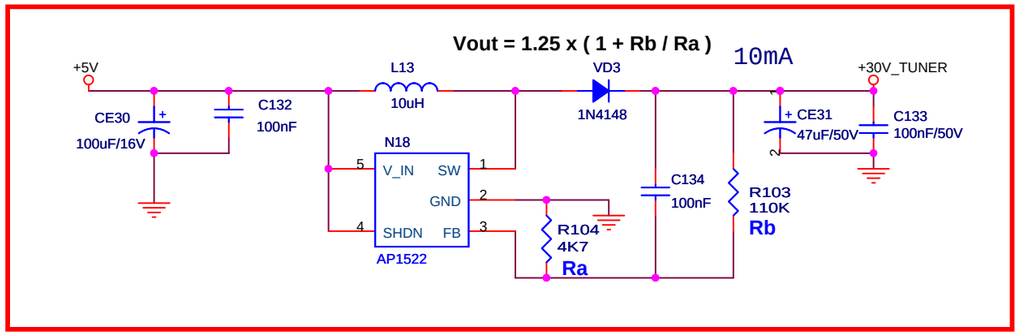

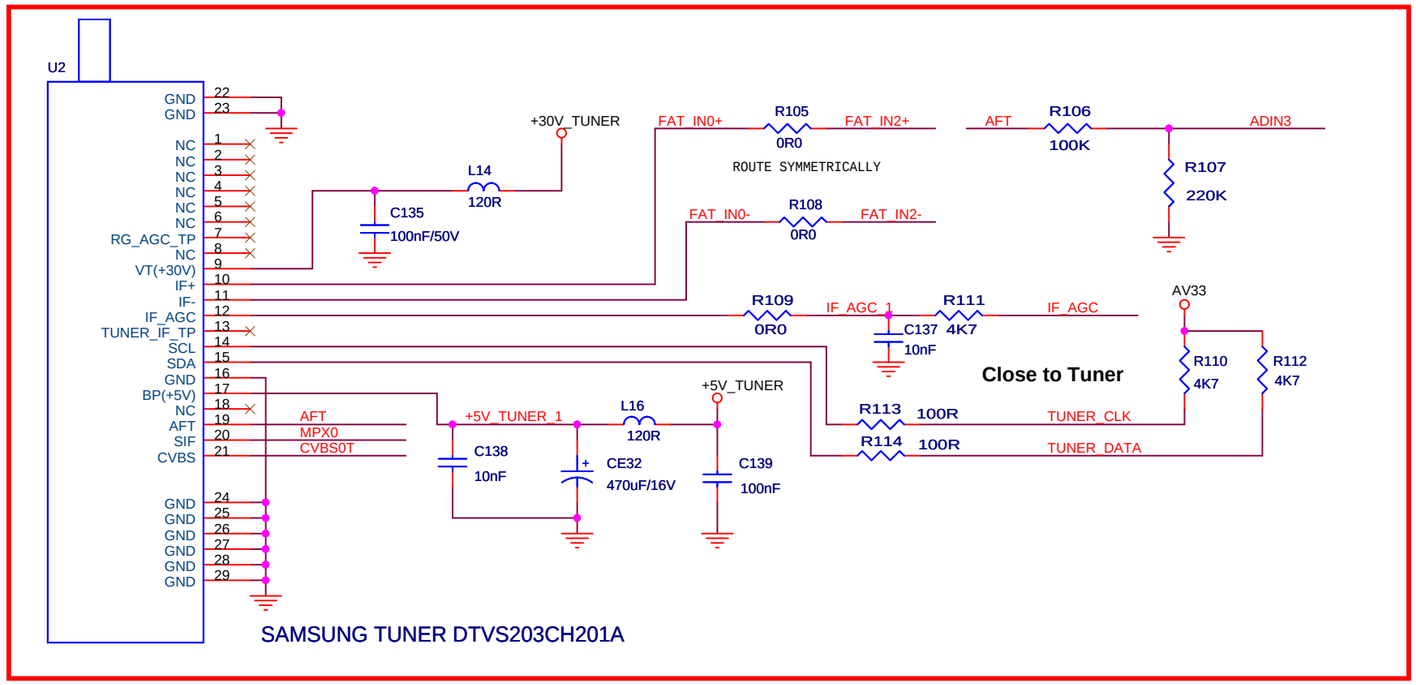

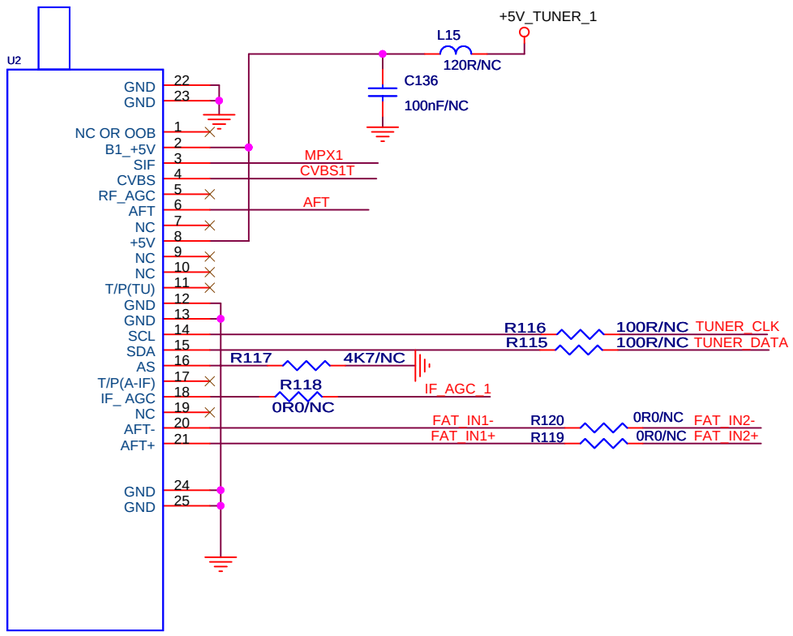

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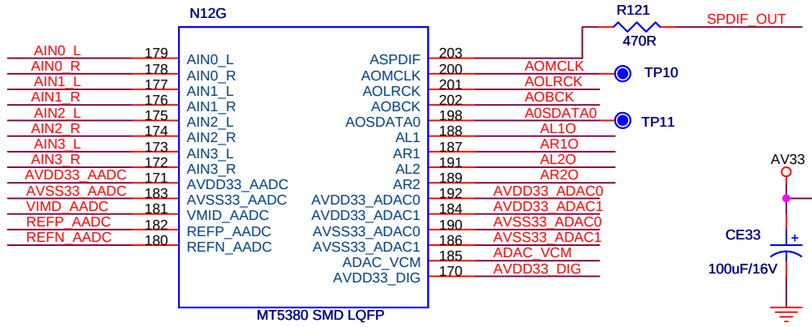

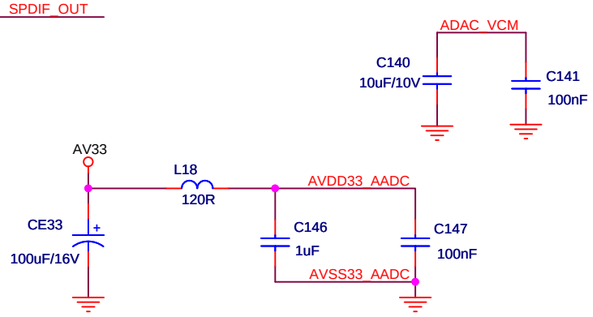

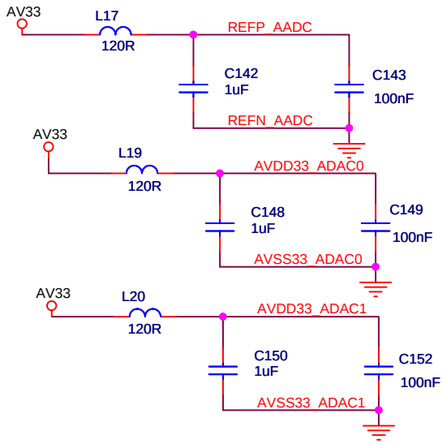

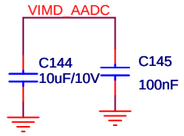

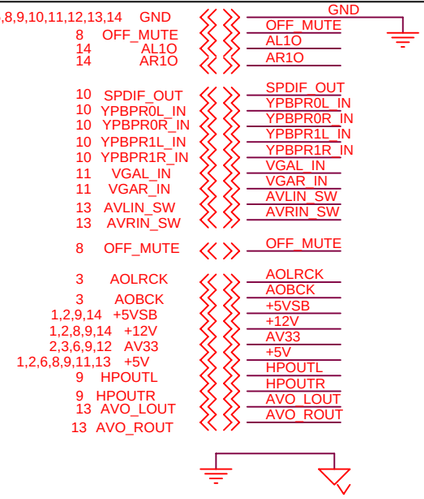

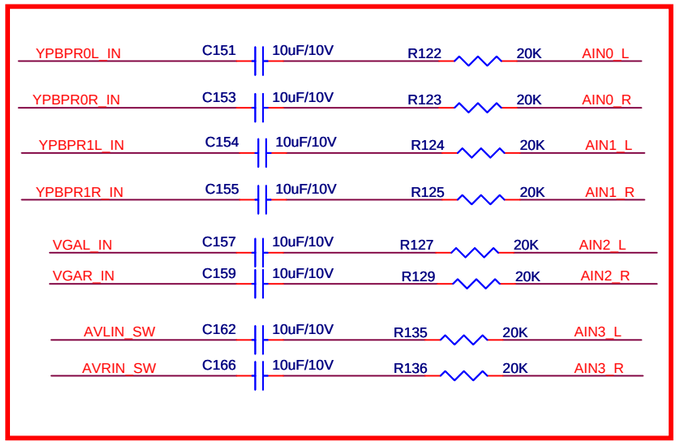
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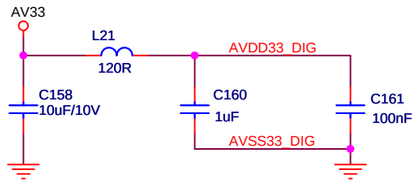

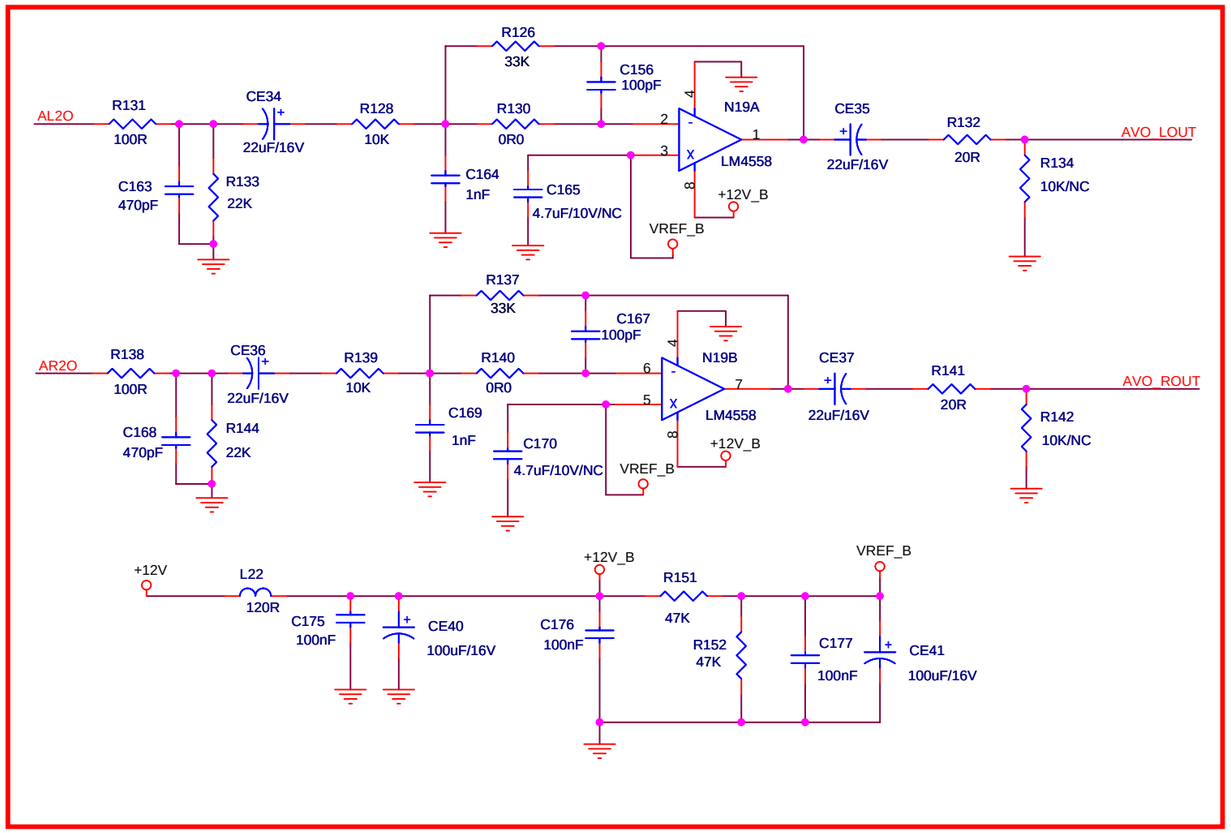

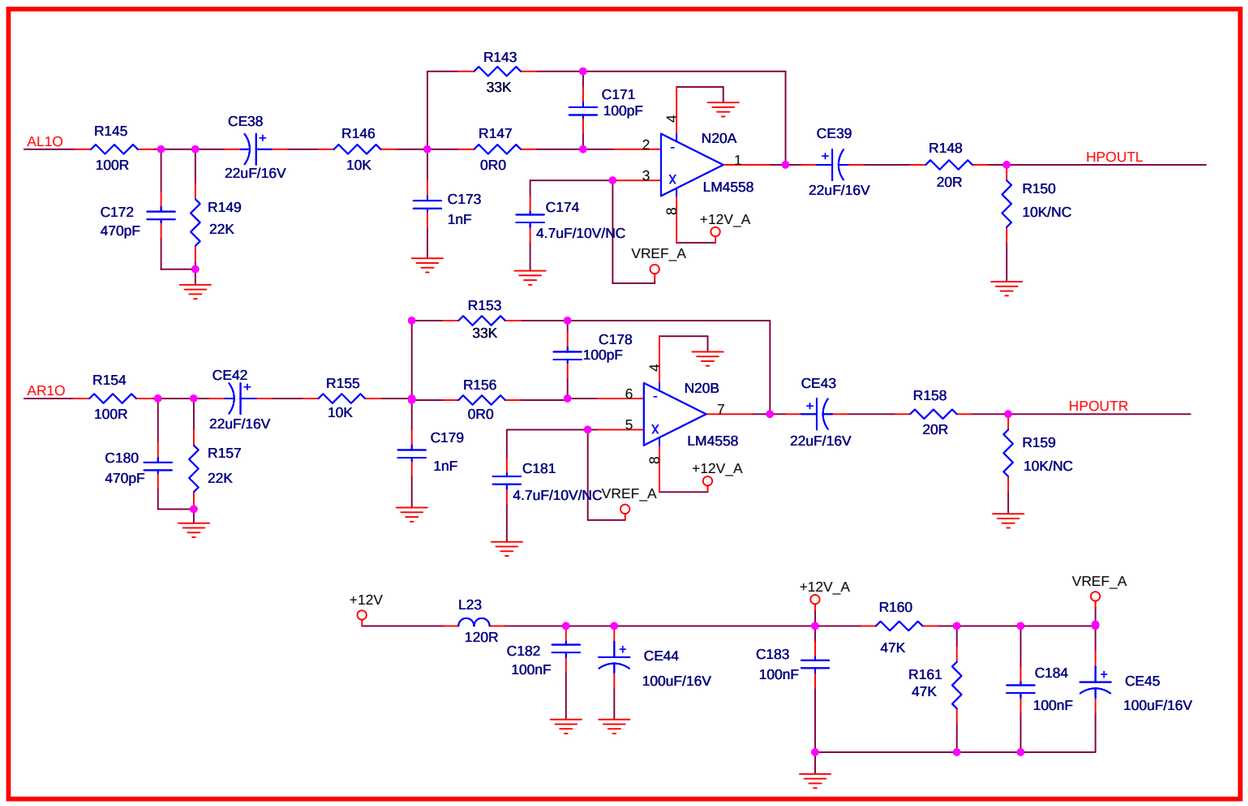

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Title	LINE OUT/HP	
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CPU_MUTE: HIGH FOR MUTE

P_MUTE: LOW FOR MUTE

MUTE_3100: HIGH FOR MUTE

SHUTDOWN: LOW FOR MUTE

MTUE CIRCUIT

TPA310X

1,2,3,4,5,6,7,9,10,11,12,13,14 GND

1,2,6,7,9,11,13 +5V

1 +18V

1,2,7,9,14 +12V

14 AL1_3100

14 AR1_3100

9 SHUTDOWN

MUTE_3100

3 OPCTRL3

7 OFF_MUTE

HPDET#

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Title	AMP/MUTE
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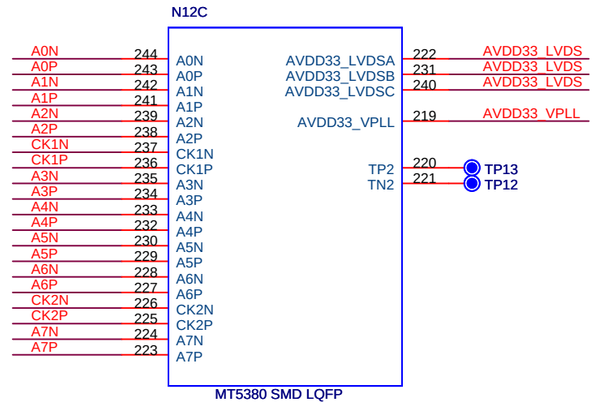
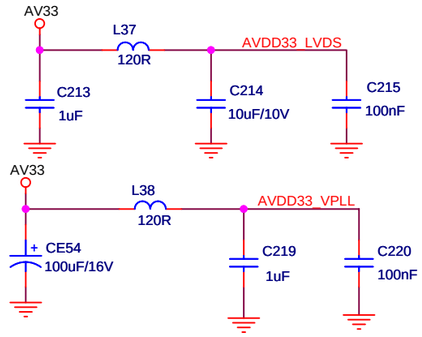
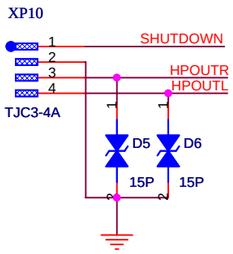
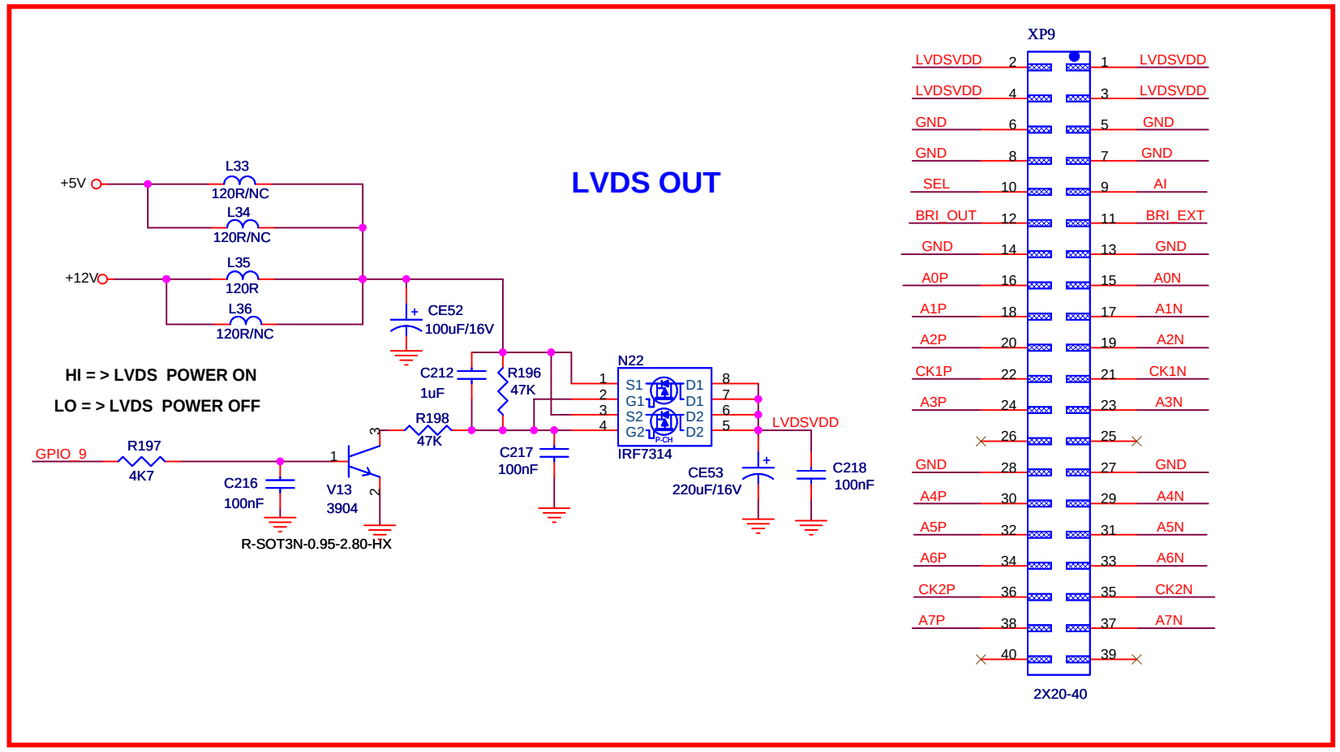
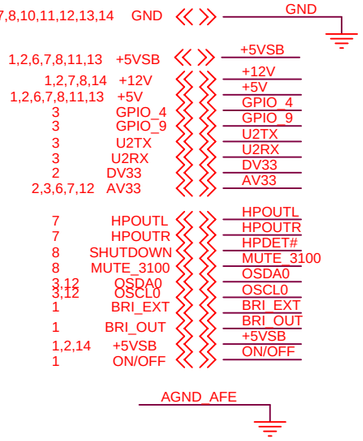
Date: Wednesday, April 16, 2008	Sheet 8 of 14

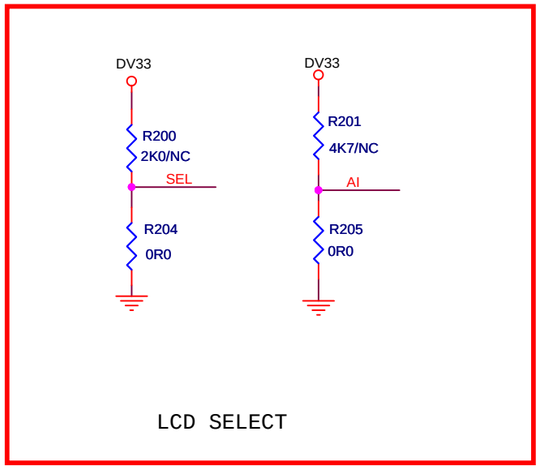


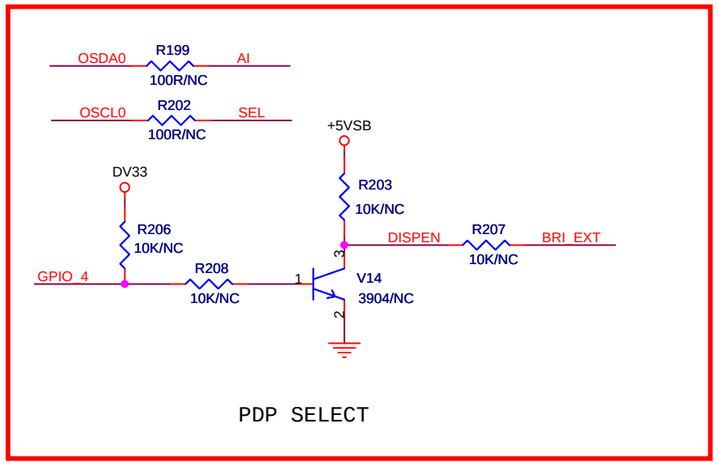












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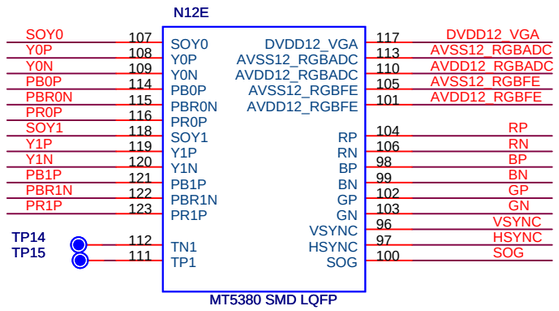

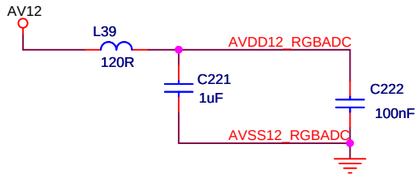

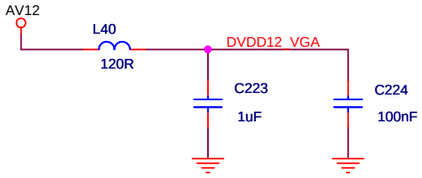

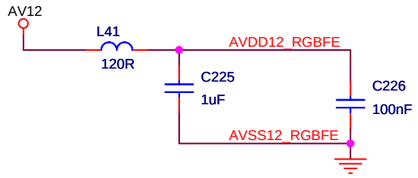

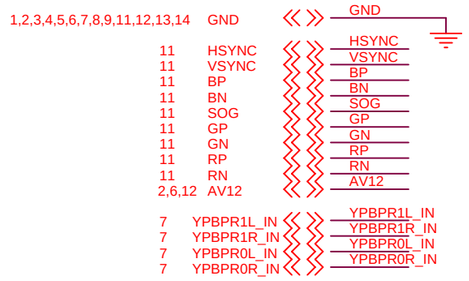

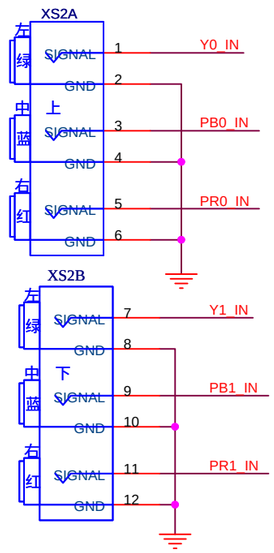

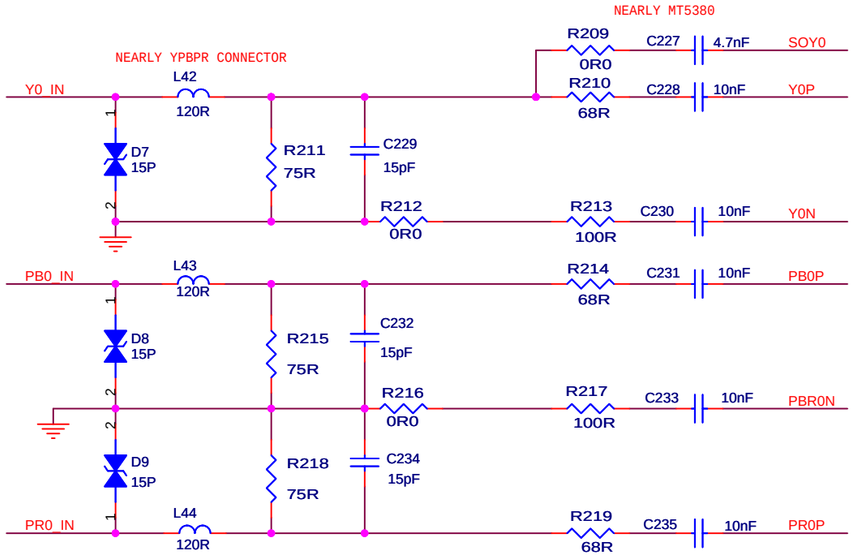

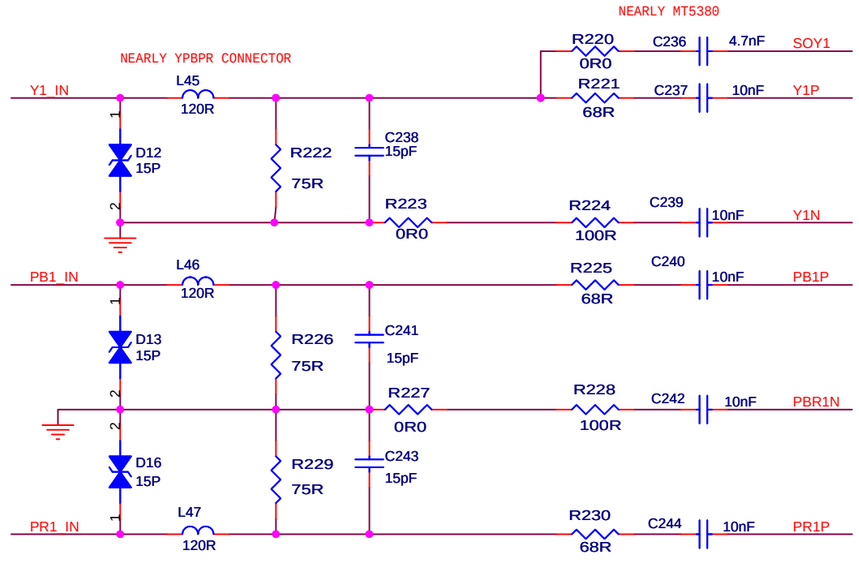

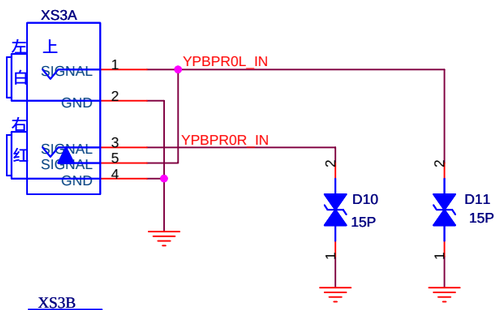

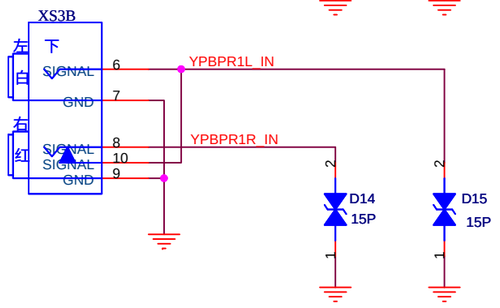

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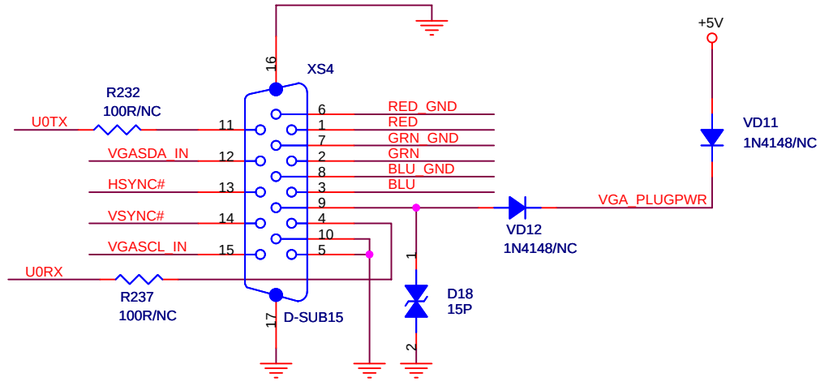
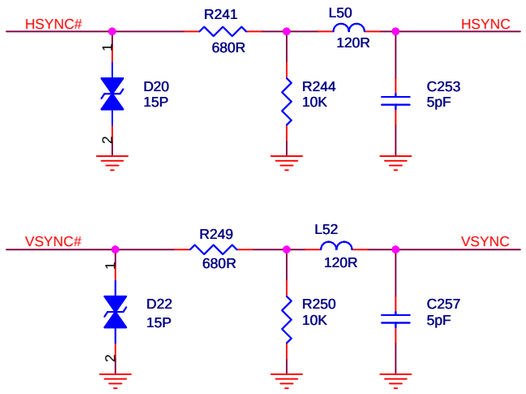
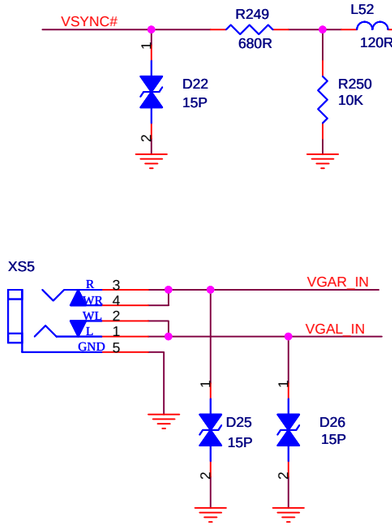
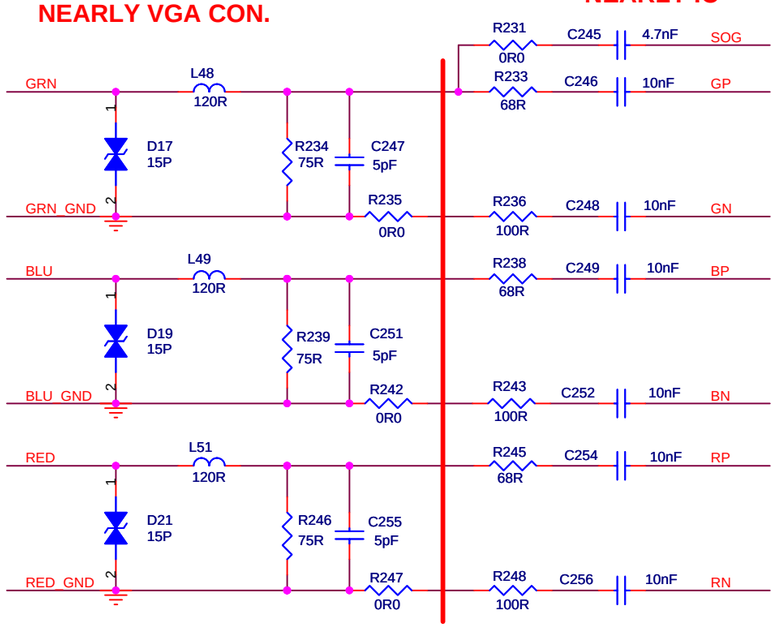


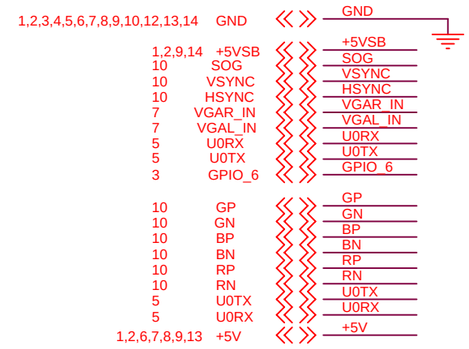


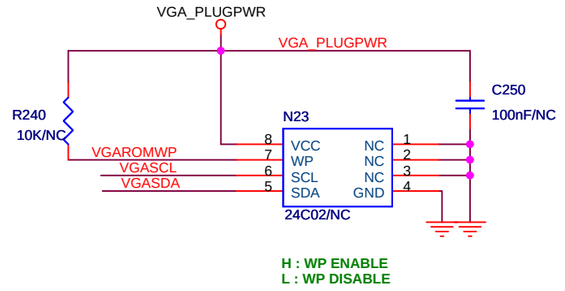


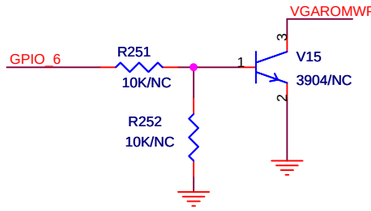
NEARLY VGA CON.

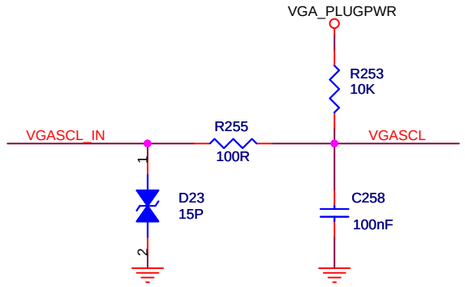
NEARLY IC

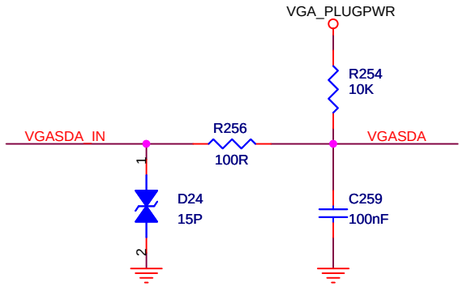












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MT5380 SMD LQFP
RXCB 79 RX0_CB
RXC 80 RX0_C
RX0B 81 RX0_0B
RX0 82 RX0_0
RX1B 83 RX0_1B
RX1 84 RX0_1
RX2B 85 RX0_2B
RX2 86 RX0_2
EXT_RES 77
OPWR0_5V 73
TP16
OPWR0_5V
AVDD33_HDMI 78
AVDD12_CVCC 74
AVDD33_H
AVDD12_CVCC
AV33
L53 120R
AVDD33_H
C260 1uF
C261 4.7uF/10V
C262 100nF
AV12
L54 120R
AVDD12_CVCC
C263 1uF
C264 4.7uF/10V
C265 100nF
CEC
R257 0R0/NC
CEC0 CEC1 CEC2
1,2,3,4,5,6,7,8,9,10,11,13,14 GND
1,2,6,7,8,9,11,13 +5V
2,3,6,7,9 AV33
2,6,10 AV12
2,6,13 AV25
3 GPIO_8
3 GPIO_1
3 GPIO_7
3 CEC
3 OSDA1
3 OSCL1
3,9 OSDA0
3,9 OSCL0
D27 D28 D29 D30 D31 D32 D33 D34 0.15P
RX1_2 RX1_2B RX1_1 RX1_1B RX1_0 RX1_0B RX1C RX1CB
XS6 HDMI TYPE-A R-DC1R019JD1-HX
HDMISCL_1 R258 100R
HDMISDA_1 R261 100R
POW1 R260 37K
HPD1_0 R259 1K
HDMI_VCC1
R262 10K/NC
D41 D43 D44 D37 15P
HDMISCL_1 R263 47K HDMI_VCC1
HDMISDA_1 R264 47K
D35 D36 D39 D40 D42 D38 D45 D46 0.15P
RX0_2 RX0_2B RX0_1 RX0_1B RX0_0 RX0_0B RX0C RX0CB
XS7 HDMI TYPE-A
HDMISCL_0 R266 100R
HDMISDA_0 R265 100R
POW0 R267 37K
HPD0_0 R268 1K
HDMI_VCC0
R269 10K/NC
D51 D52 D53 D47 15P
HDMISCL_0 R271 47K HDMI_VCC0
HDMISDA_0 R270 47K
D50 D54 D48 D55 D56 D49 D57 D58 0.15P
RX2_2 RX2_2B RX2_1 RX2_1B RX2_0 RX2_0B RX2C RX2CB
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HDMISCL_2 R272 100R
HDMISDA_2 R276 100R
POW2 R275 37K
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HDMI_VCC2
R278 10K/NC
D62 D59 D61 D60 15P
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HDMISDA_2 R285 47K
PS321
R-TSQFP080N-0.500-14.00X14.00-HX
AV33_HDMI
C266 4.7uF/10V
R273 100R
R274 4K7/NC
POW0 R287 100R
HPD0_0
HDMISDA_0
HDMISCL_0
R279 0R0/NC
R280 4K7
R297 100R
POW1
HPD1_0
R281 4K7
R284 4K7
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R298 100R OSDA0
R299 10K
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R301 500R %1
R302 4K7/NC
R303 4K7/NC
C270 4.7uF/10V
C271 C272 C273 C274 C275 C276 C277 C278 100nF
R-CAPC1608N-HX
AV33
C267 100nF
R290 4K7
R294 0R0/NC
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R292 33R
R291 10K
V16 3904
R293 10K
GPIO_1
OSCL1
OSDA1
HDMI EDID EEPROM
L55 120R
V17 3904/NC
C268 10uF/10V
C269 100nF
R304 100K/NC
R305 10K/NC
R306 10K/NC
R307 4K7/NC
V18 3904/NC
GPIO_8
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Size A2
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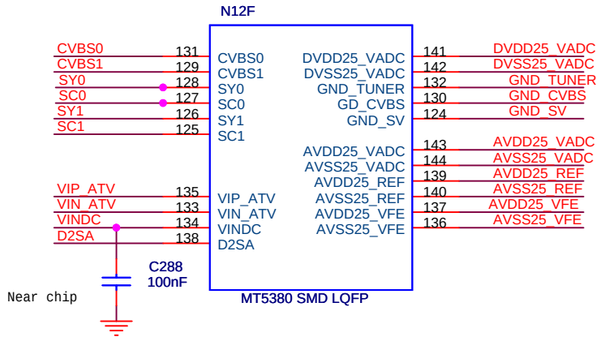

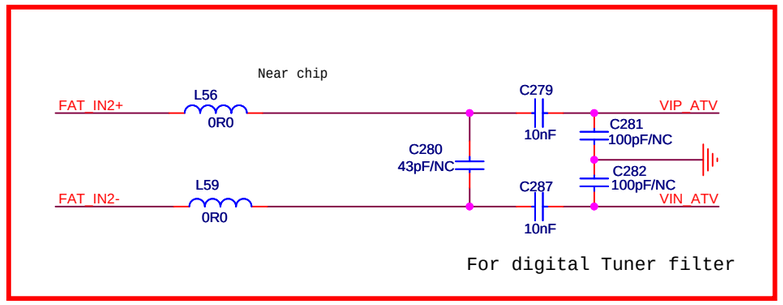

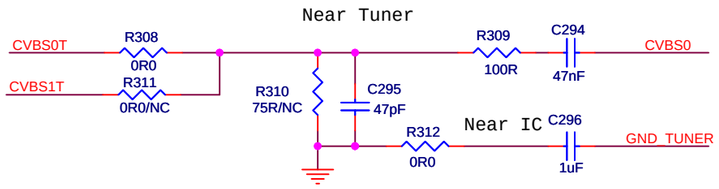

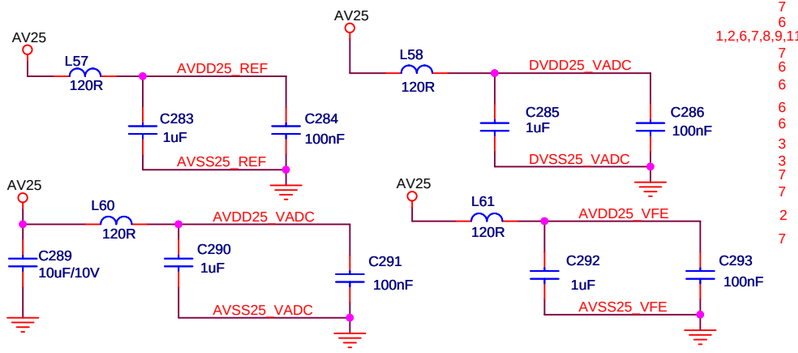

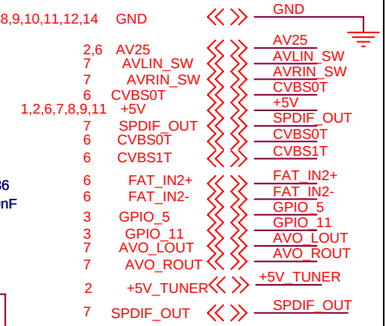

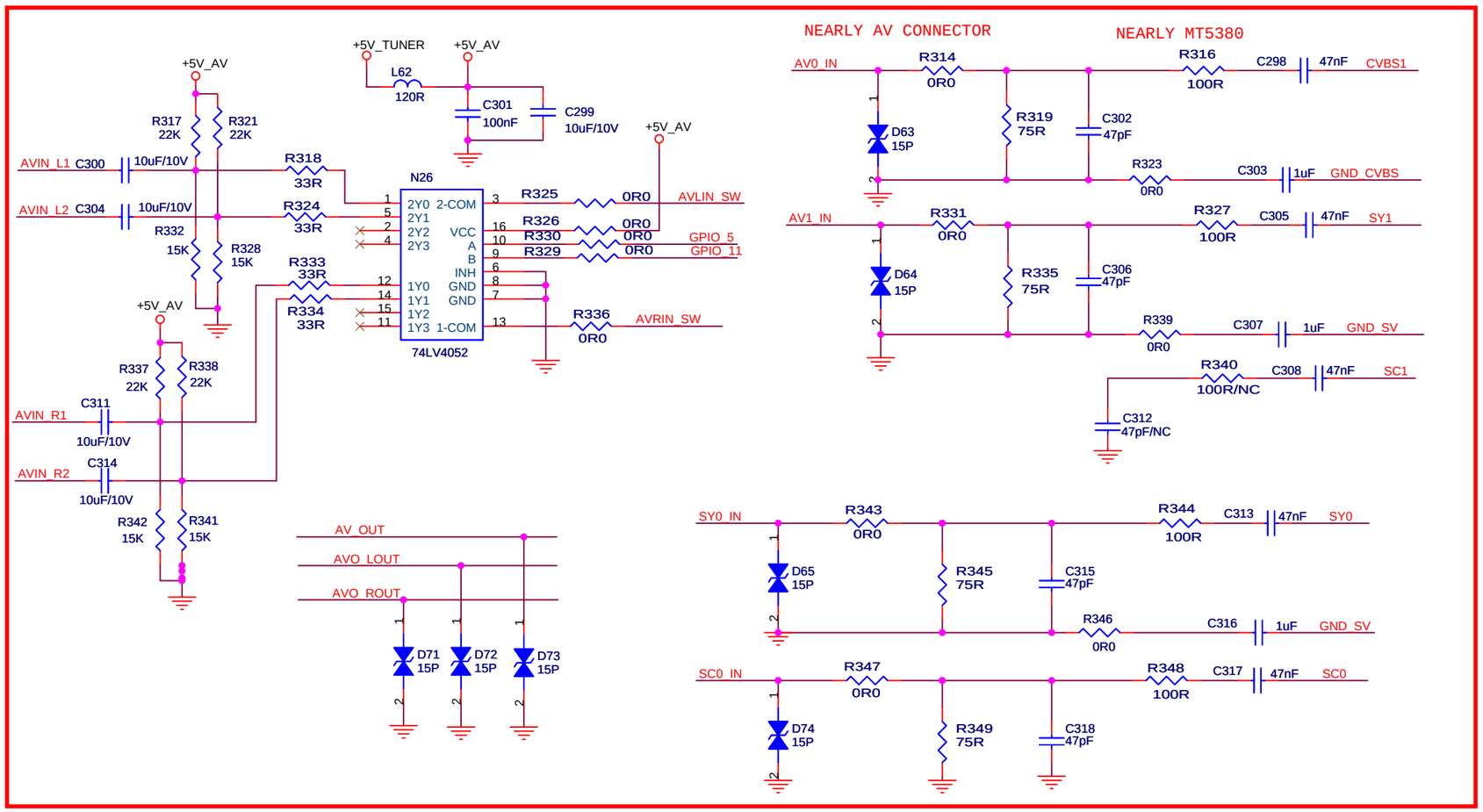

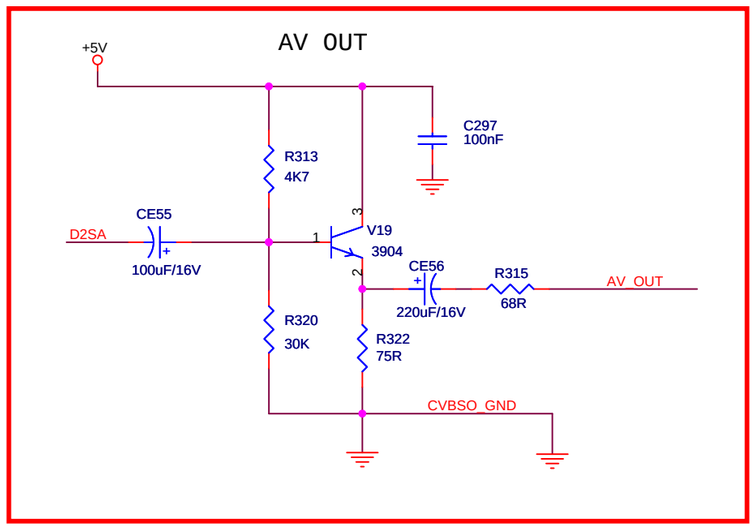

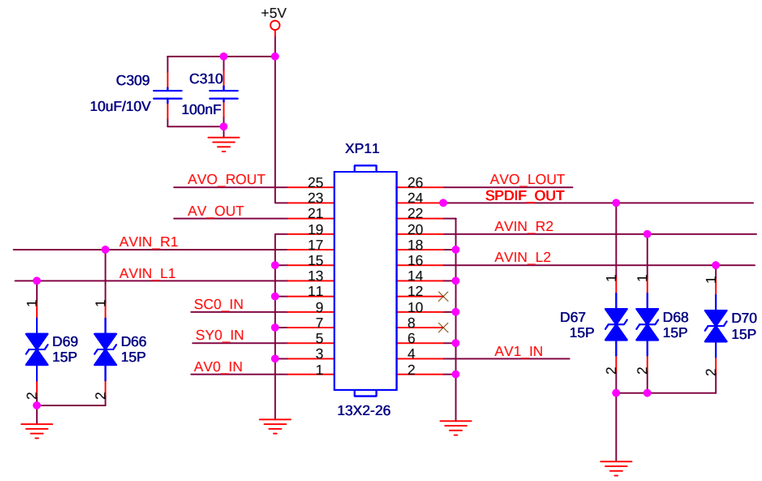

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1,2,9	+5VSB	+5VSB
1,2,7,8,9	+12V	+12V
1,2,6,7,8,9,11,13	+5V	**+5V**
2,3,5	DV33	DV33
3	OPCTRL1	OPCTRL1
5	OIRI	OIRI
7	AR1O	AR1O
7	AL1O	AL1O
3	ADIN1	ADIN1
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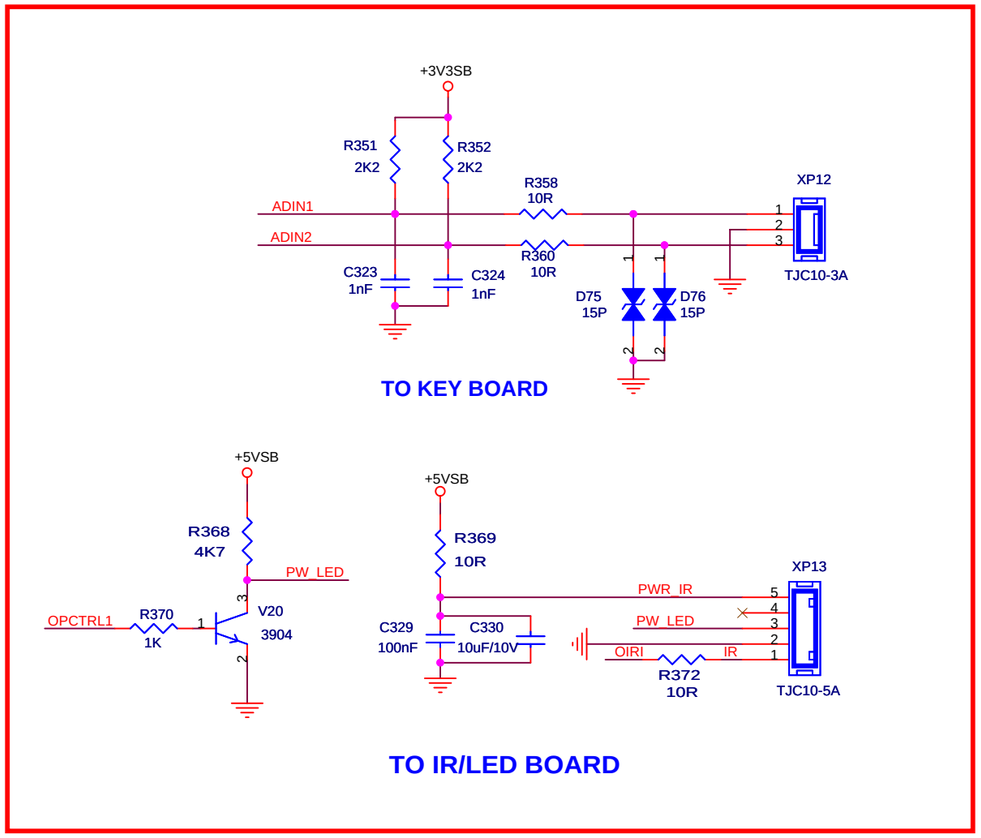

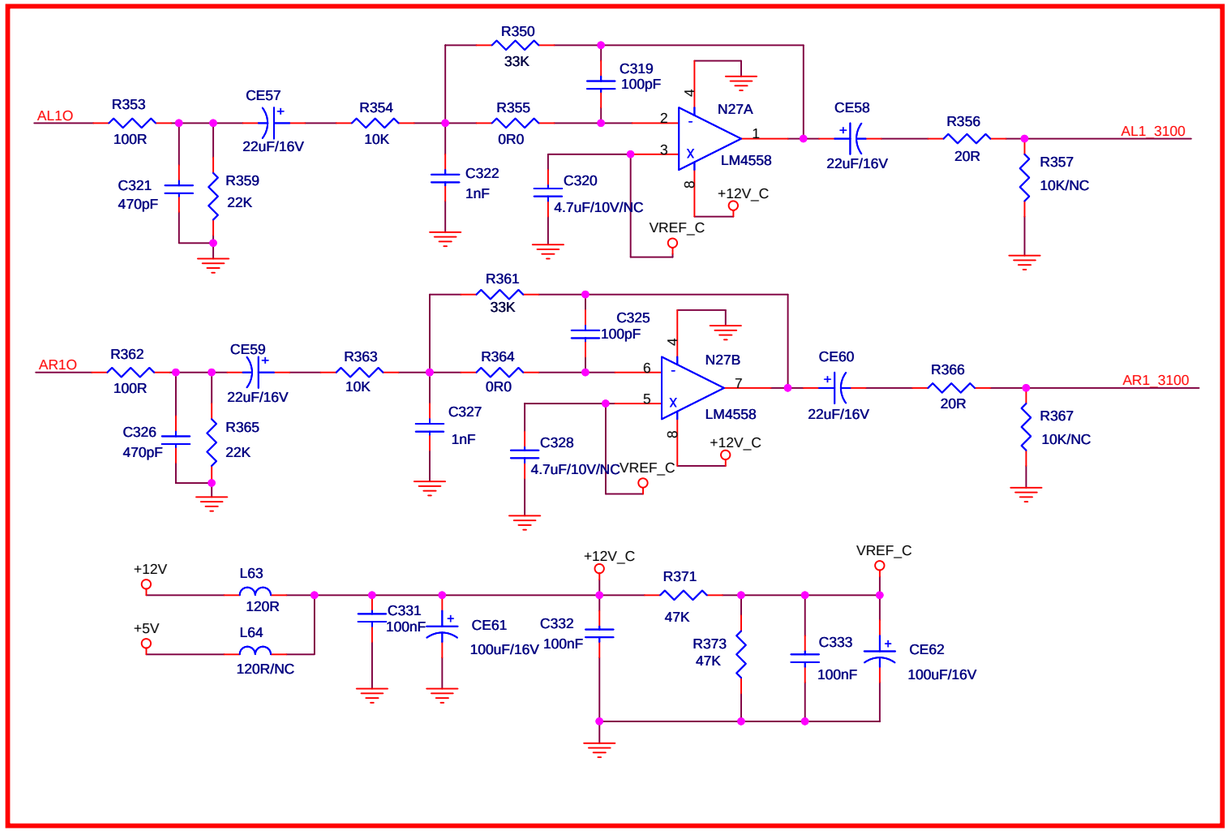

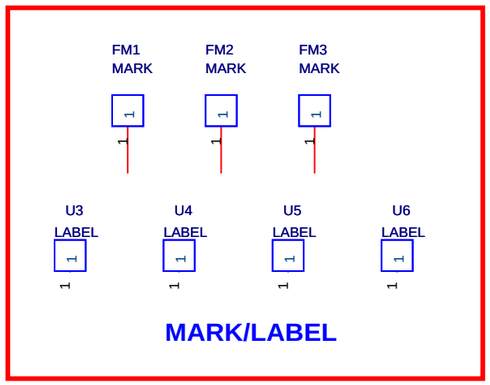

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